



STIC Search Report

EIC 1700

STIC Database Tracking Number: 101056

TO: Eisa Elhilo
Location: CP3 9D34
Art Unit : 1751
August 14, 2003

Case Serial Number: 10/052321

From: Kathleen Fuller
Location: EIC 1700
CP3/4 3D62
Phone: 308-4290

Kathleen.Fuller@uspto.gov

Search Notes





STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact **the EIC searcher or contact:**

**Kathleen Fuller, EIC 1700 Team Leader
308-4290, CP3/4-3D62**

Voluntary Results Feedback Form

➤ *I am an examiner in Workgroup:* *Example: 1713*
➤ *Relevant prior art found, search results used as follows:*

- 102 rejection
- 103 rejection
- Cited as being of interest.
- Helped examiner better understand the invention.
- Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/EIC1700 CP3/4 3D62



=> file reg
FILE 'REGISTRY' ENTERED AT 11:24:34 ON 14 AUG 2003
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9
DICTIONARY FILE UPDATES: 13 AUG 2003 HIGHEST RN 566135-25-9

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

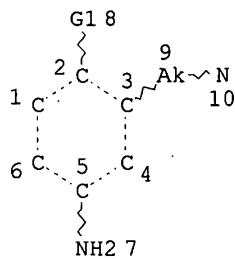
=> file hcplus
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FILE COVERS 1907 - 14 Aug 2003 VOL 139 ISS 7
FILE LAST UPDATED: 13 Aug 2003 (20030813/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que
L13 SCR 1568
L18 STR



623 structures from query

VAR G1=OH/NH2

NODE ATTRIBUTES:

NSPEC IS RC AT 10

CONNECT IS E2 RC AT 9

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

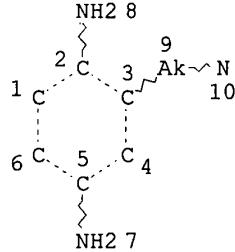
RSPEC 1

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13

L22 STR



305 structures from subset

NODE ATTRIBUTES:

NSPEC IS RC AT 10

CONNECT IS E2 RC AT 9

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 1

NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE

L24 305 SEA FILE=REGISTRY SUB=L21 SSS FUL L22

L25 87 SEA FILE=HCAPLUS ABB=ON L24

L26 32 SEA FILE=HCAPLUS ABB=ON L25 AND (HAIR OR KERAT?)

=> sel hit rn 126 1-32
E1 THROUGH E243 ASSIGNED

32 CA references

=> d 126 all fhitstr 1-32

L26 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:300263 HCAPLUS
 DN 138:308942
 TI Substituted 2-aminoalkyl-1,4-diaminobenzene compounds and oxidation dye precursor compositions containing them
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Switz.
 SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 692,971.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM A61K007-13
 NCL 008405000; 008406000; 008415000
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003070241	A1	20030417	US 2002-146264	20020515
	US 6436152	B1	20020820	US 2000-692971	20001020
	US 2002189033	A1	20021219	US 2002-124149	20020417

PRAI DE 1999-19961272 A 19991218
 US 2000-692971 A2 20001020

OS MARPAT 138:308942

AB The oxidn. hair dye precursor compn., in the form of a soln., cream, emulsion or gel, contains (i) 0.005-20.0% by wt. of at least one coupler compd., and (ii) 0.005-20.0% by wt. of at least one developer compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prep'd. and formulated into an oxidn. hair dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died hair colors, resp.

ST aminoalkyl diaminobenzene prep'n hair dye developer; oxidative hair dye precursor coupler diaminobenzene developer

IT Hair preparations

(dyes, oxidative; oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
 RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
 (Reactant or reagent); USES (Uses)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 350481-07-1P 350481-08-2P 350481-09-3P
 350481-10-6P 350481-11-7P 350481-13-9P
 350481-15-1P 350481-16-2P 350481-17-3P
 350481-18-4P 350481-19-5P 350481-20-8P
 350481-21-9P 350481-22-0P 350481-23-1P
 350481-24-2P 350481-25-3P 350481-26-4P
 350481-27-5P 350481-29-7P 350481-30-0P
 350481-31-1P 350481-32-2P 350481-36-6P
 350481-40-2P 350481-41-3P 350481-43-5P
 350481-44-6P 350481-45-7P 350481-46-8P
 350481-47-9P 350481-48-0P 350481-50-4P
 350481-51-5P 350481-52-6P 350481-53-7P
 350481-54-8P 350481-56-0P 350481-57-1P
 350481-58-2P 350481-59-3P 350481-61-7P
 350481-62-8P 350481-63-9P 350481-64-0P
 350481-65-1P 350481-66-2P 350481-67-3P
 350481-69-5P 350481-70-8P 350481-71-9P
 350481-72-0P 350481-73-1P 350481-74-2P
 350481-75-3P 350481-76-4P 350481-77-5P
 350481-78-6P 350481-79-7P 350481-80-0P
 350481-81-1P 350481-82-2P 350481-84-4P
 350481-85-5P 350481-87-7P 350481-88-8P
 350481-89-9P 350481-90-2P 350481-91-3P
 350481-92-4P 350481-93-5P 350481-94-6P
 350481-95-7P 350481-96-8P 350481-99-1P
 350482-00-7P 510774-40-0P 510774-41-1P
 510774-42-2P 510774-43-3P 510774-44-4P
 510774-45-5P 510774-46-6P 510774-47-7P
 510774-48-8P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3,
 L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3,
 Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
 Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8,
 2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3,
 2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
 4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde
 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine
 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline,
 reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine
 107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine
 109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1,
 2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7,
 Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine,
 reactions 111-42-2, Diethanolamine, reactions 120-57-0,
 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde
 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5,

Ethanolamine, reactions 147-85-3, L-Proline, reactions 364-73-8,
 1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2,
 3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline
 498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1,
 Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-
 tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
 587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0,
 Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
 Pyridine-4-carboxaldehyde 1001-53-2, N-Acetylethylenediamine
 1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde
 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine
 2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-
 Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7,
 Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9,
 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
 Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0,
 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid
 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol
 14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl
 dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide
 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde
 68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1
 325953-45-5 325953-46-6 325953-48-8 510774-39-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 325953-36-4P 350481-97-9P 350481-98-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

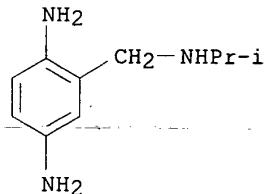
IT 350481-07-1P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

RN 350481-07-1 HCPLUS

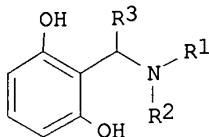
CN 1,4-Benzenediamine, 2-[(1-methylethyl)amino]methyl-, hydrochloride (9CI)
 (CA INDEX NAME)



● x HCl

L26 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:238180 HCAPLUS
 DN 138:271380
 TI Preparation of 2-substituted resorcinol derivatives containing coloring agent as well as new resorcinol derivatives
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 48 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C215-52
 ICS A61K007-13; C07D213-36; C07D307-00; C07D207-04
 CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 41, 62
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20217957	U1	20030327	DE 2002-20217957	20021120
PRAI DE 2002-20217957		20021120		
OS MARPAT 138:271380				
GI				



I

AB A means of the coloring **keratin** fibers based on a developer/generator substance coupling agent combination, is characterized by the fact that it contains at least one resorcinol deriv. I [R1, R2 = H, C1-6-alkyl, C2-6-alkenyl, acetyl, C1-4-alkoxy, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C1-4-alkoxy-C1-4-alkyl, C1-4-hydroxyalkoxy-C1-4-alkyl, C1-4-aminoalkyl, C1-4-(dimethylamino)alkyl, C1-4-(acetylamino)alkyl, C1-4-[(tert-butoxycarbonyl)amino]alkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridyl Me, furfuryl, tetrahydrofurfuryl, methyltetrahydrofurfuryl, (un)substituted pyridyl, Ph, pyrazolyl, piperidinyl, morpholinyl, piperazinyl, pyrrolidinyl; R3 = H, C1-6-alkyl] or its physiol. compatible water-sol. salts. Thus, I [R1 = CH₂CH₂OMe, R2 = R3 = H] was prep'd. from resorcinol, via O-alkylation with ClCH₂CH₂OMe, Vilsmeier formylation, O-deprotection and reductive amination with MeOCH₂CH₂NH₂. A **hair** dye was prep'd. contg. I [R1 = CH₂CH₂OMe, R2 = R3 = H] and 2,5-diaminotoluene sulfate-(developing agent) giving a medium blond color.

ST resorcinol deriv prep'n coloring agent **keratin** fiber; aniline deriv developer coupling agent dye component

IT **Hair** preparations
 (dyes; prep'n. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Fibers
 RL: NUU (Other use, unclassified); USES (Uses)

(keratin, coloring agents for; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Amines, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reductive amination by, of dihydroxybenzaldehyde; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT Phenols, preparation
 RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 627-42-9, 1-Chloro-2-methoxyethane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (O-alkylation by, of resorcinol; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 108-46-3, Resorcinol, biological studies 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-95-2, 5-Amino-2-methylphenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (coupling substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-86-3, 2,4-Diaminophenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 123-31-9, 1,4-Dihydroxybenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triaminopyrimidin-4-(1H)-one 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17272-83-2, N-Benzylbenzene-1,4-diamine 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71411-90-0 73793-80-3, 1,4-Diamino-2-[hydroxymethyl]benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9, (2,5-Diaminophenyl)ethanol sulfate 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 131311-66-5, 4,5-Diamino-1-benzyl-1H-pyrazole 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-53-9, 4,5-Diamino-1-[(4-methoxyphenyl)methyl]-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 4,5-Diamino-1-[(4-chlorophenyl)methyl]-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 181473-60-9, N-[(Furan-2-yl)methyl]benzene-1,4-diamine 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thien-3-yl)benzene 251114-07-5, 2,3',5-Triamino-1,1'-biphenyl 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene **325952-88-3** 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 400058-21-1, 4,5-Diamino-1-pentyl-1H-pyrazole 402559-72-2, N-[(Thien-3-yl)methyl]benzene-1,4-diamine 402559-73-3, N-[(Furan-3-yl)methyl]benzene-1,4-diamine 402559-76-6, N-[(Thien-2-yl)methyl]benzene-1,4-diamine 402825-68-7, N-[4-(Pyrrolidin-1-yl)benzyl]benzene-1,4-diamine 503046-72-8, 4-(2,5-Diaminophenyl)-2-[(diethylamino)methyl]thiophene 503046-73-9, 2-Chloro-3-(2,5-diaminophenyl)thiophene 503046-74-0, 2,5-Diamino-4'-(1-methylethyl)-1,1'-biphenyl **503046-75-1**, 1,4-Diamino-2-[(phenylamino)methyl]benzene **503046-76-2** 503046-96-6 503047-00-5, 2,5-Diamino-4'-hydroxy-1,1'-biphenyl 503047-01-6, 2,5-Diamino-2'-(trifluoromethyl)-1,1'-biphenyl 503047-02-7, 2,4',5-Triamino-1,1'-biphenyl

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(developer substance for coloring agent contg. resorcinol derivs.;
prepn. of 2-substituted resorcinol derivs. contg. coloring agent as
well as new resorcinol derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8,
6-Chloro-2-(ethylamino)-4-nitrophenol

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(direct dye coupling substance for resorcinol derivs. contg. coloring
agent; prepn. of 2-substituted resorcinol derivs. contg. coloring agent
as well as new resorcinol derivs.)

IT 94564-77-9P 503046-49-9P 503046-50-2P 503046-51-3P 503046-52-4P
503046-53-5P, 1-(2,6-Dihydroxybenzyl)piperidin-4-ol 503046-54-6P
503046-55-7P 503046-56-8P 503046-57-9P 503046-58-0P 503046-59-1P
503046-60-4P 503046-61-5P 503046-62-6P 503046-63-7P 503046-64-8P
503046-65-9P 503046-66-0P 503046-67-1P 503046-68-2P 503046-69-3P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and color of dyes contg.; prepn. of 2-substituted resorcinol
derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 503046-71-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and deprotection of; prepn. of 2-substituted resorcinol derivs.
contg. coloring agent as well as new resorcinol derivs.)

IT 503046-70-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and formylation of; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 387-46-2P, 2,6-Dihydroxybenzaldehyde
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reductive amination of, with amines and aniline derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 503047-03-8P
 RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

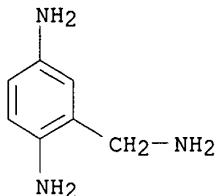
IT 94564-81-5P, 1,3-Dihydroxy-2-(aminomethyl)benzene 503046-77-3P,
 N-[2-(2,6-Dihydroxybenzylamino)ethyl]acetamide 503046-78-4P,
 1,3-Dihydroxy-2-[(methylamino)methyl]benzene 503046-79-5P,
 2-[(2,6-Dihydroxybenzyl)amino]ethanol 503046-80-8P, 1-[2,6-Dihydroxybenzyl]pyridin-3-ol 503046-81-9P, [1-(2,6-Dihydroxybenzyl)pyrrolidin-2-yl]methanol 503046-82-0P,
 1-(2,6-Dihydroxybenzyl)piperidin-3-ol 503046-83-1P 503046-84-2P,
 2-(2,6-Dihydroxybenzylamino)propan-1-ol 503046-85-3P 503046-86-4P
 503046-87-5P 503046-88-6P 503046-89-7P 503046-90-0P 503046-91-1P,
 1,3-Dihydroxy-2-[(phenylamino)methyl]benzene 503046-93-3P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 90-04-0, 1-Amino-2-methoxybenzene 99-57-0, 2-Amino-4-nitrophenol 104-94-9, 1-Amino-4-methoxybenzene 107-11-9, Allylamine 107-15-3, (2-Aminoethyl)amine, reactions 109-85-3, (2-Methoxyethyl)amine 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1, Pyrrolidine, reactions 462-08-8, 3-Aminopyridine 504-29-0, 2-Aminopyridine 536-90-3, 1-Amino-3-methoxybenzene 617-89-0, [(2-Furyl)methyl]amine 929-06-6, [2-(2-Hydroxyethoxy)ethyl]amine 2735-04-8, 1-Amino-2,4-dimethoxybenzene 5382-16-1, 4-Hydroxypiperidine 7175-81-7, (S)-[(Tetrahydrofuran-2-yl)methyl]amine 57260-73-8, N-(2-Aminoethyl)carbamic acid 1,1-dimethylethyl ester 71026-66-9, N-(4-Aminophenyl)carbamic acid 1,1-dimethylethyl ester
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reductive amination of dihydroxybenzaldehyde by; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (developer substance for coloring agent contg. resorcinol derivs.; prepn. of 2-substituted resorcinol derivs. contg. coloring agent as well as new resorcinol derivs.)

RN 67199-87-5 HCPLUS

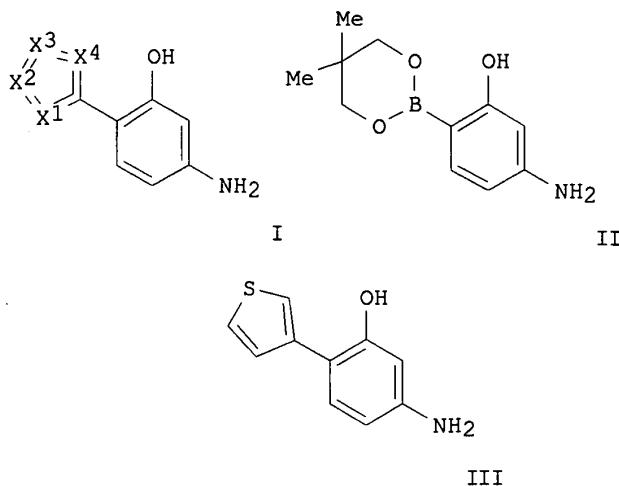
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA. INDEX NAME)



L26 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2003:170369 HCAPLUS
 DN 138:206431
 TI Preparation of 3-aminophenols as oxidative dyeing agents of human hair
 IN Pasquier, Cecile; Wyss, Patrick; Braun, Hans-Juergen
 PA Wella AG, Germany
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07D333-06
 ICS C07D333-20; C07D307-52; C07D277-04; A61K007-13
 CC 40-6 (Textiles and Fibers)
 Section cross-reference(s): 25, 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10141723	A1	20030306	DE 2001-10141723	20010825
	WO 2003018571	A1	20030306	WO 2002-EP4495	20020424
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	PRAI DE 2001-10141723 A		20010825		
OS	MARPAT 138:206431				
GI					



AB Title compds. I [X1, X2, X3 = S, N, O, etc., with provisos] were prep'd. For example, aryl coupling of dioxaborinane II, e.g., prep'd. from 3-aminophenol in 4-steps, and 3-bromothiophene, followed by HCl mediated phenol deprotection afforded diaminobenzene III hydrochloride in 23% yield. In coloration studies of bleached hair, 9-examples of compds. I in combination with 4-dyeing developers resulted in a range of hair coloring, e.g., a prep'n. of diaminobenzene III hydrochloride and 2,5-diaminotoluene sulfate produced a violet color.

ST prepn aminophenol oxidative dye agent human hair keratin

IT Hair preparations

(dyes; prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT Human

(prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT Keratins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human
hair.)

IT 500354-21-2P, 3-Ethoxymethoxyphenylamine 500354-22-3P 500354-23-4P

500354-24-5P

: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); Reactant or reagent)
(intermediate; prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazol

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(prepn. of aminophenols as oxidative dyeing agents of human
hair.)

IT 83-56-7, 1,5-Naphthalenediol 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone
 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol
 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolindione 91-68-9,
 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9,
 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline
 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5,
 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9,

4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3,
1,4-Diaminobenzene, reactions 108-45-2, 1,3-Diaminobenzene, reactions
108-46-3, 1,3-Dihydroxybenzene, reactions 123-30-8, 4-Aminophenol
137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1,
4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,
1,7-Naphthalenediol 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9
615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid
770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7,
2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9,
2-Methyl-1-naphtholacetate 5862-80-6, 4-[(2,3-
Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-dihydroxybenzene
6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6358-09-4,
2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-
dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene
7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7228-00-4,
2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7,
3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine
17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-dihydro-
[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-
benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7,
5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol
55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-aminomethylbenzene 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8, 1,3-Diamino-4-(2-
hydroxyethoxy)benzene sulfate 71077-37-7, 1,3-Diamino-4-(2-
methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-
ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 74918-21-1,
1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 75513-65-4,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
3-[(2-Hydroxyethyl)amino]-2-methylphenol 81329-90-0,
5-[(2-Hydroxyethyl)amino]-1,3-benzodioxol 81892-72-0,
1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisol 83763-48-8 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1,
3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8,
1,4-Diamino-2-(2-hydroxyethyl)benzene 93841-25-9 94082-77-6,
2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 94158-14-2 97902-52-8,

1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di-[(2-Hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-ethylamino-4-nitrophenol 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazol 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazol 155601-30-2 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazol 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazol 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 217311-43-8, 2-4-Diamino-5-fluorotoluene sulfate 244104-61-8, 1,4-Diamino-2-(thiophen-2-yl)benzene 246244-41-7, 1,4-Diamino-2-(thiophen-3-yl)benzene 282542-32-9, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT 500353-66-2P, 5-Amino-2-(3-thienyl)phenol 500353-67-3P, 5-Amino-2-(3-furyl)phenol 500353-68-4P, 5-Amino-2-(pyrrol-3-yl)phenol 500353-69-5P, 5-Amino-2-(1-methyl-1H-pyrrol-3-yl)phenol 500353-70-8P, 5-Amino-2-(1,3-thiazol-2-yl)phenol 500353-71-9P, 5-Amino-2-(1,3-thiazol-5-yl)phenol 500353-72-0P, 5-Amino-2-(2-thienyl)phenol 500353-73-1P, 5-Amino-2-(2-furyl)phenol 500353-74-2P, 5-Amino-2-(pyrrol-2-yl)phenol 500353-75-3P, 5-Amino-2-(1-methyl-1H-pyrrol-2-yl)phenol 500353-76-4P, 5-Amino-2-(2-chloro-3-thienyl)phenol 500353-77-5P, 5-Amino-2-(2-methyl-3-thienyl)phenol 500353-78-6P, 5-Amino-2-(2-nitro-3-thienyl)phenol 500353-79-7P, 5-Amino-2-(2-amino-3-thienyl)phenol 500353-80-0P, 5-Amino-2-(2-acetyl-3-thienyl)phenol 500353-81-1P, 5-Amino-2-(2-formyl-3-thienyl)phenol 500353-82-2P, 5-Amino-2-(4-chloro-3-thienyl)phenol 500353-83-3P, 5-Amino-2-(4-methyl-3-thienyl)phenol 500353-84-4P, 5-Amino-2-(4-nitro-3-thienyl)phenol 500353-85-5P, 5-Amino-2-(4-amino-3-thienyl)phenol 500353-86-6P, 5-Amino-2-(4-acetyl-3-thienyl)phenol 500353-87-7P, 5-Amino-2-(4-formyl-3-thienyl)phenol 500353-88-8P, 5-Amino-2-(5-chloro-3-thienyl)phenol 500353-89-9P, 5-Amino-2-(5-methyl-3-

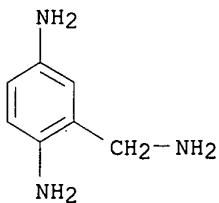
thienyl)phenol 500353-90-2P, 5-Amino-2-(5-nitro-3-thienyl)phenol
 500353-91-3P, 5-Amino-2-(5-acetyl-3-thienyl)phenol 500353-92-4P,
 5-Amino-2-(5-amino-3-thienyl)phenol 500353-93-5P, 5-Amino-2-(5-formyl-3-thienyl)phenol 500353-94-6P, 5-Amino-2-(5-formyl-3-furyl)phenol 500353-95-7P, 5-Amino-2-(3-chloro-2-thienyl)phenol 500353-96-8P, 5-Amino-2-(3-methyl-2-thienyl)phenol 500353-97-9P, 5-Amino-2-(3-nitro-2-thienyl)phenol 500353-98-0P, 5-Amino-2-(3-amino-2-thienyl)phenol 500353-99-1P, 5-Amino-2-(3-acetyl-2-thienyl)phenol 500354-00-7P, 5-Amino-2-(3-formyl-2-thienyl)phenol 500354-01-8P, 5-Amino-2-(4-chloro-2-thienyl)phenol 500354-02-9P, 5-Amino-2-(4-methyl-2-thienyl)phenol 500354-03-0P, 5-Amino-2-(4-nitro-2-thienyl)phenol 500354-04-1P, 5-Amino-2-(4-amino-2-thienyl)phenol 500354-05-2P, 5-Amino-2-(4-acetyl-2-thienyl)phenol 500354-07-4P, 5-Amino-2-(4-formyl-2-thienyl)phenol 500354-08-5P, 5-Amino-2-(5-chloro-2-thienyl)phenol 500354-09-6P, 5-Amino-2-(5-methyl-2-thienyl)phenol 500354-10-9P, 5-Amino-2-(5-nitro-2-thienyl)phenol 500354-11-0P, 5-Amino-2-(5-amino-2-thienyl)phenol 500354-12-1P, 5-Amino-2-(5-acetyl-2-thienyl)phenol 500354-13-2P, 5-Amino-2-(5-formyl-2-thienyl)phenol 500354-14-3P, 5-Amino-2-(5-formyl-2-furyl)phenol 500354-15-4P, 5-Amino-2-(5-nitro-1,3-thiazol-2-yl)phenol 500354-16-5P, 5-Amino-2-(5-amino-1,3-thiazol-2-yl)phenol 500354-17-6P, 5-Amino-2-(2-nitro-1,3-thiazol-5-yl)phenol 500354-18-7P, 5-Amino-2-(2-amino-1,3-thiazol-5-yl)phenol 500354-19-8P, 5-Amino-2-(3,5-dimethyl-1H-pyrazol-4-yl)phenol 500354-20-1P, 5-Amino-2-(5-nitro-4H-1,2,4-triazol-3-yl)phenol 500354-25-6P, 5-Amino-2-(3-thienyl)phenol hydrochloride 500354-26-7P, 5-Amino-2-(3-furyl)phenol hydrochloride 500354-27-8P, 5-Amino-2-(1,3-thiazol-2-yl)phenol hydrochloride 500354-28-9P, 5-Amino-2-(2-thienyl)phenol hydrochloride 500354-29-0P, 5-Amino-2-(4-methyl-3-thienyl)phenol hydrochloride 500354-30-3P, 5-Amino-2-(2-chloro-3-thienyl)phenol hydrochloride 500354-31-4P, 5-Amino-2-(5-chloro-2-thienyl)phenol hydrochloride 500354-32-5P, 5-Amino-2-(5-acetyl-2-thienyl)phenol hydrochloride 500354-33-6P, 5-Amino-2-(5-formyl-2-furyl)phenol hydrochloride
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT 872-31-1, 3-Bromothiophene 1003-09-4, 2-Bromothiophene 2873-18-9, 2-Bromo-5-chlorothiophene 3034-53-5, 2-Bromo-1,3-thiazol 3188-13-4, Chloromethyl ethyl ether 4701-17-1, 2-Bromo-5-formylthiophene 5370-25-2, 2-Bromo-5-acetylthiophene 22037-28-1, 3-Bromofuran 24424-99-5, Di-tert-butyldicarbonate 30318-99-1, 3-Bromo-4-methylthiophene 40032-73-3, 3-Bromo-2-chlorothiophene 201733-56-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of aminophenols as oxidative dyeing agents of human hair.)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (prepn. of aminophenols as oxidative dyeing agents of human hair.)

RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:904285 HCAPLUS
 DN 137:375003
 TI Synthesis of 1,3-dihydroxybenzene derivatives and their use in oxidative hair dyes
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Ag, Germany
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07D333-06
 ICS C07D333-12; C07D307-38; C07F007-08; A61K007-13; C07D207-325
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 27
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10125453	A1	20021128	DE 2001-10125453	20010525
	WO 2002096901	A2	20021205	WO 2002-EP850	20020128
	WO 2002096901	A3	20030313		
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
		RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	BR 2002005398	A	20030701	BR 2002-5398	20020128
PRAI	DE 2001-10125453	A	20010525		
	DE 2001-20108704	U	20010525		
	WO 2002-EP850	W	20020128		
OS	MARPAT 137:375003				
AB	The invention concerns 1,3-dihydroxybenzene derivs., their synthesis and application as coupling agents in oxidative hair dyes. Thus 1,3-dihydroxy-4-(thiophene-2yl)-benzene was synthesized in a three step reaction and used in a hair dye compn. as a 1.25 mmol ingredient; other components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.				
ST	dihydroxybenzene deriv oxidative hair dye				
IT	Hair preparations (dyes, oxidative; synthesis of 1,3-dihydroxybenzene derivs. and their				

use in oxidative hair dyes)

IT 72287-26-4, Di-chloro(1,1'-bis(diphenyl-phosphino)ferrocene)palladium
RL: CAT (Catalyst use); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative
hair dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8,
5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5,
2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4,
2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline
93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5,
1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene
99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline
101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological
studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3,
1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol
137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1,
4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxy benzene 575-38-2,
1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7,
2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid
770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0,
5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-
methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6,
4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4,
6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2,
1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]-
acetamide 7469-77-4, 2-Methyl-1-naphthol 7575-35-1,
4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7, 3,4-Methylenedioxyaniline
16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol
26011-57-4, 6-Amino-3,4-dihydro,1-4(2H)-benzoxazine 26021-57-8,
3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0,
N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine
29539-03-5, 5,6-Dihydroxindoline 29785-47-5, 4-Amino-2-
(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichloro-phenol
45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7,
3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline 67199-87-5,
1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-
hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 73793-80-3,
1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-
dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline
78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0,

4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475391-60-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 365548-62-5P 365548-63-6P 365548-64-7P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 110-87-2, 3,4-Dihydro-2H-pyran 1003-09-4, 2-Bromothiophene 6626-15-9, 4-Bromo-1,3-dihydroxybenzene 13195-50-1, 2-Bromo-5-nitrothiophene 14282-76-9, 2-Bromo-3-methylthiophene 73183-34-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

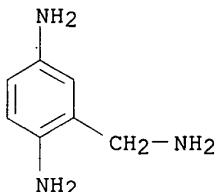
IT 31963-61-8P 365548-74-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(synthesis of 1,3-dihydroxybenzene derivs. and their use in oxidative hair dyes)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:904284 HCAPLUS
DN 137:375002
TI Synthesis of N-benzyl-m-phenylenediamine derivatives and their use in oxidative hair dyes
IN Chassot, Laurent; Braun, Hans-Juergen
PA Wella Ag, Germany
SO Ger. Offen., 18 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07C217-82
ICS C07C233-18; C07C215-00; C07C311-00; C07C317-00; C07C323-00;
C07F007-10; A61K007-13; C07D231-38; D06P001-642
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10125451	A1	20021128	DE 2001-10125451	20010525
	WO 2002096854	A1	20021205	WO 2002-EP1087	20020202
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2002005434	A	20030624	BR 2002-5434	20020202
PRAI	DE 2001-10125451	A	20010525		
	WO 2002-EP1087	W	20020202		
OS	MARPAT	137:375002			
AB	The invention concerns N-benzyl-m-phenylenediamine derivs., their synthesis and application as coupling agents in oxidative hair				

dyes. Thus 2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride was synthesized in a two step reaction starting from 2-(2,4-diaminophenoxy)ethanol and di-tert.-butyldicarbonate; the product was reacted with benzaldehyde. A hair dye compn. contained:

2-[4-amino-2-benzylamino-phenoxy]-ethanol hydrochloride 1.25 mmol; 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% soln.) 1.0 g; ammonia (22% soln.) 1.0 g; ethanol 1.0g; ascorbic acid 0.3 g; water to 100 g.

ST benzyl phenylene diamine deriv oxidative hair dye

IT Hair preparations

(dyes, oxidative; synthesis of N-benzyl-m-phenylenediamine derivs. and their use in oxidative hair dyes)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-73-3, 1,2,4-Benzenetriol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 475490-37-0 475490-38-1 475490-39-2 475490-40-5 475490-41-6 475490-42-7 475490-43-8 475490-44-9 475490-45-0 475490-46-1 475490-47-2 475490-48-3 475490-49-4 475490-50-7 475490-51-8 475490-52-9 475490-53-0 475490-54-1 475490-55-2 475490-56-3 475490-57-4 475490-58-5 475490-59-6 475490-60-9 475490-61-0 475490-62-1 475490-63-2 475490-64-3 475490-65-4 475490-66-5 475490-67-6 475490-68-7 475490-69-8 475490-70-1 475490-71-2 475490-72-3 475490-73-4 475490-74-5 475490-75-6 475490-76-7 475490-77-8 475490-78-9

475490-79-0 475490-80-3 475490-81-4 475490-82-5 475490-83-6
 475490-84-7 475490-85-8 475490-86-9 475490-87-0 475490-88-1
 475490-89-2 475490-90-5 475490-91-6 475490-92-7 475490-93-8
 475490-94-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
 oxidative hair dyes)

IT 475490-95-0P 475490-96-1P 475490-97-2P 475490-98-3P 475490-99-4P
 475491-00-0P 475491-01-1P 475491-02-2P 475491-03-3P 475491-04-4P
 475491-05-5P 475491-06-6P 475491-07-7P 475491-08-8P 475491-09-9P
 475491-10-2P 475491-11-3P 475491-12-4P 475491-13-5P 475491-14-6P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)

(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
 oxidative hair dyes)

IT 90-02-8, 2-Hydroxybenzaldehyde, reactions 100-10-7, 4-
 Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 100-83-4,
 3-Hydroxybenzaldehyde 122-85-0, 4-Acetamidobenzaldehyde 123-08-0,
 4-Hydroxybenzaldehyde 123-11-5, 4-Methoxybenzaldehyde, reactions
 135-02-4, 2-Methoxybenzaldehyde 529-23-7, 2-Aminobenzaldehyde
 555-16-8, 4-Nitrobenzaldehyde, reactions 619-66-9, 4-Formyl benzoic acid
 1194-98-5, 2,5-Dihydroxybenzaldehyde 1709-44-0, 3-Aminobenzaldehyde
 17354-79-9 22042-73-5 24424-99-5, Di-tert-butyldicarbonate
 27913-86-6 58028-76-5 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol
 144072-30-0, (4-Formyl-phenyl)-carbamic acid tert-butylester 402826-41-9
 402826-43-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
 oxidative hair dyes)

IT 325953-48-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

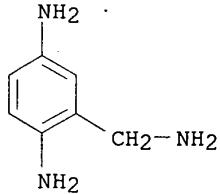
(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
 oxidative hair dyes)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(synthesis of N-benzyl-m-phenylenediamine derivs. and their use in
 oxidative hair dyes)

RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 6 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN

AN 2002:777882 HCPLUS

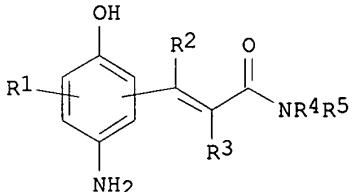
DN 137:296211

TI (1-Amino-4-hydroxyphenyl)acrylamide derivatives and oxidative hair
 dyes containing them

IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 57 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07C237-20
 ICS A61K007-13; D06P001-32; C07D295-18; C07D295-12; C07D231-38;
 C07D307-52; C07D211-46; C07D207-27; C07D213-75; C07D233-61;
 C07D307-22; C07D317-66; C07D207-08; C07D207-16; C07D211-42
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 25, 27, 28, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002079144	A1	20021010	WO 2001-EP12126	20011019
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10115994	A1	20021010	DE 2001-10115994	20010330
	EP 1286953	A1	20030305	EP 2001-274059	20011019
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2001011197	A	20030408	BR 2001-11197	20011019
PRAI	DE 2001-10115994	A	20010330		
	WO 2001-EP12126	W	20011019		
OS	MARPAT 137:296211				
GI					



AB The invention relates to aminohydroxyphenylacrylamide derivs. (I; R1 = H, halogen, alkyl, hydroxyalkyl, alkoxy; R2, R3 = H, alkyl; R4, R5 = H, alkyl, unsatd. alkyl, hydroxyalkyl, alkoxy, optionally substituted aminoalkyl, cyanoalkyl, carboxyalkyl, aminocarbonylalkyl, arom. group, heterocyclic group) or physiol. acceptable, water-sol. salts of I, and to oxidative hair dyes contg. I as developers. I provide hair dyes with very good fastness to light and washing. Examples were given in which 3-(5-amino-2-hydroxyphenyl)acrylamide derivs. were prepd. from 3-[5-(tert-butoxycarbonylamino)-2-(ethoxymethoxy)phenyl]acrylic acid and the appropriate amines or amine

derivs.

ST aminohydroxyphenylacrylamide deriv prodn developer component oxidative hair dye

IT Hair preparations
(dyes, oxidative; aminohydroxyphenylacrylamide deriv. developers for oxidative hair dyes)

IT 467466-23-5 467466-24-6 467466-25-7 467466-26-8 467466-27-9
467466-28-0 467466-29-1 467466-30-4
RL: TEM (Technical or engineered material use); USES (Uses)
(aminohydroxyphenylacrylamide deriv. developers for oxidative hair dyes)

IT 128-08-5, N-Bromosuccinimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(brominating agent; prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative hair dyes)

IT 14268-66-7, 3,4-Methylenedioxyaniline
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(couplers for oxidative hair dyes contg.
aminohydroxyphenylacrylamide deriv. developers)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphe nol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-(2-Hydroxyethylamino)phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-(2-Hydroxyethylamino)aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxyphe nol 7228-00-4, 2-(3-Hydroxyphenylamino)acetamide 7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 76045-64-2, 3-(2-Aminoethylamino)aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-(methylamino)benzene 80592-80-9, 3-(2,3-Dihydroxypropylamino)-2-methylphenol 80592-81-0, 3-(2-Hydroxyethylamino)-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6,

2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 104752-50-3,
 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4,
 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9; 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-(2-Methoxyethylamino)phenol 146658-65-3, 5-(3-Hydroxypropylamino)-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethylamino)toluene 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7,
 5-Amino-2-ethylphenol 244028-58-8, 2,4-Bis(2-hydroxyethylamino)-1,5-dimethoxybenzene 244028-59-9, 5-(2-Hydroxyethylamino)-1,3-benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364327-98-0,
 1,3-Diamino-4-(2,3-dihydroxypropyl)benzene

RL: TEM (Technical or engineered material use); USES (Uses)
 (couplers for oxidative hair dyes contg.
 aminohydroxyphenylacrylamide deriv. developers)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6,
 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9,
 4-(Dimethylamino)aniline 101-54-2, 4-Anilinoaniline 106-50-3,
 1,4-Diaminobenzene, uses 150-75-4, 4-(Methylamino)phenol 399-95-1,
 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3,
 1,2,4-Trihydroxybenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3,
 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6,
 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 17672-22-9,
 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1,
 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8,
 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8,
 4-(Dipropylamino)aniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0,
 4-Amino-2-(2-hydroxyethylaminomethyl)phenol 126335-43-1,
 1,4-Diamino-2-(hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-N-(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
 1,4-Bis(4-aminophenylamino)butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9,
 2-[2-(Acetylamino)ethoxy-1,4-diaminobenzene 244104-61-8,
 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2,

1,4-Diamino-2-(methoxymethyl)benzene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in oxidative hair dye compns. contg.
 aminohydroxyphenylacrylamide deriv. developers)

IT 364598-99-2P 364599-00-8P 364599-01-9P 467466-31-5P 467466-32-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (intermediate; prodn. of aminohydroxyphenylacrylamide deriv. developers
 for oxidative hair dyes)

IT 467466-33-7P 467466-34-8P 467466-35-9P 467466-36-0P 467466-37-1P
 467466-38-2P 467466-39-3P 467466-40-6P 467466-41-7P 467466-42-8P
 467466-43-9P 467466-44-0P 467466-45-1P 467466-46-2P 467466-47-3P
 467466-48-4P 467466-49-5P 467466-50-8P 467466-51-9P 467466-52-0P
 467466-53-1P 467466-54-2P 467466-55-3P 467466-56-4P 467466-57-5P
 467466-58-6P 467466-59-7P 467466-60-0P 467466-61-1P 467466-62-2P
 467466-63-3P 467466-64-4P 467466-65-5P 467466-66-6P 467466-67-7P
 467466-68-8P 467466-69-9P 467466-70-2P 467466-71-3P 467466-72-4P
 467466-73-5P 467466-74-6P 467466-75-7P 467466-76-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (prodn. of aminohydroxyphenylacrylamide deriv. developers for oxidative
 hair dyes)

IT 72-18-4, L-Valine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
 Isopropylamine, reactions 96-20-8, 2-Amino-1-butanol 99-57-0,
 2-Amino-4-nitrophenol 107-10-8, Propylamine, reactions 107-11-9,
 Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3 109-83-1,
 2-(Methylamino)ethanol 109-85-3, 2-Methoxyethylamine 110-73-6,
 2-(Ethylamino)ethanol 110-91-8, Morpholine, reactions 123-30-8,
 4-Aminophenol 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol
 616-30-8, 3-Amino-1,2-propanediol 617-89-0, Furfurylamine 765-30-0,
 Cyclopropylamine 917-54-4, Methylolithium 1001-53-2,
 N-Acetylenediamine 2038-03-1, 4-(2-Aminoethyl)morpholine
 2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane 2812-47-7,
 Prolinamide 3188-13-4, Chloromethyl ethyl ether 4214-76-0,
 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 6168-72-5,
 2-Aminopropanol 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride
 6859-99-0, 3-Hydroxypiperidine 7575-35-1, 4-[Bis(2-
 hydroxyethyl)amino]aniline 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone
 25739-59-7, 2-Amino-3-hydroxypropionamide 50610-33-8 54840-15-2,
 tert-Butyl N-(4-hydroxyphenyl)carbamate 68621-88-5, tert-Butyl
 3-aminophenylcarbamate 71026-66-9, tert-Butyl 4-aminophenylcarbamate
 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 325953-40-0
 325953-41-1 325953-45-5 325953-46-6 325953-48-8 460084-09-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; prodn. of aminohydroxyphenylacrylamide deriv.
 developers for oxidative hair dyes)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

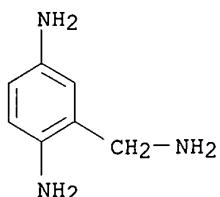
RE

(1) Henkel Kga; DE 19607751 A 1997 HCPLUS

IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (in oxidative hair dye compns. contg.
 aminohydroxyphenylacrylamide deriv. developers)

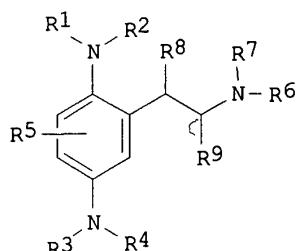
RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

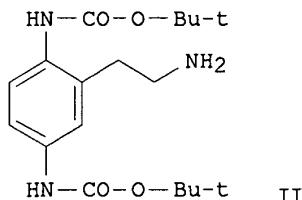


L26 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:750510 HCAPLUS
 DN 137:280569
 TI Preparation of 2-(2-aminoethyl)-1,4-benzenediamines for use in the oxidative dyeing of keratin fibers
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella A.-G., Germany
 SO Ger. Offen., 20 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS C07C211-52; C07C211-53; C07C215-08; C07C217-00; D06P001-645;
 A61K007-13; C07C255-58
 CC 40-6 (Textiles and Fibers)
 Section cross-reference(s): 25, 41
 FAN.CNT 1
 PATENT NO. KIND DATE APPLICATION NO. DATE

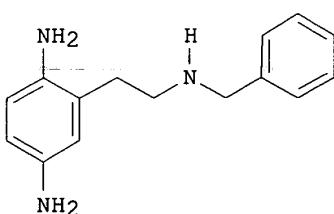
 PI DE 10112506 A1 20021002 DE 2001-10112506 20010315
 PRAI DE 2001-10112506 20010315
 OS MARPAT 137:280569
 GI



I



II



III

AB Title compds. I [R1-R4 = H, alkyl, hydroxyalkyl, etc.; R5 = H, halo, alkyl, etc.; R6, R7 = H, alkyl, alkene, etc.; R8, R9 =H, alkyl] were prep'd. For example, NaBH(OAc)3 mediated reductive amination of benzaldehyde with amine II, prep'd. from 2-(2,5-diaminophenyl)ethanol sulfate in 2-steps, followed by amine deprotection, afforded benzenediamine III. In coloration studies of bleached hair, 29-examples of compds. I in combination with 4-dyeing developers resulted in a range of hair coloring, e.g., a prepn. of compd. III and 1,3-benzenediol produced the color blond.

ST prepn benzenediamine **keratin hair oxidative dye**

IT **Hair preparations**
(dyes; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT **Hair preparations**
Pigments, nonbiological
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT **Keratins**
RL: IMF (Industrial manufacture); PREP (Preparation)
(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT 463935-72-0P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT 463935-71-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, reactions 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphephenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxyphephenol 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline

78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9,
 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0,
 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisol 84540-48-7, 2,4-Diaminophenoxyacetic acid 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7,
 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8,
 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8,
 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9,
 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7,
 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole
 RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)

(prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT 463935-35-5P 463935-36-6P 463935-37-7P
 463935-38-8P 463935-39-9P 463935-40-2P
 463935-41-3P 463935-42-4P 463935-43-5P
 463935-44-6P 463935-45-7P 463935-46-8P
 463935-47-9P 463935-48-0P 463935-49-1P
 463935-50-4P 463935-51-5P 463935-52-6P
 463935-53-7P, N-[4-[(2-(2,5-Diaminophenyl)ethylamino)methyl]phenyl]acetamide Hydrochloride 463935-54-8P 463935-55-9P
 463935-56-0P 463935-57-1P 463935-59-3P
 463935-61-7P 463935-63-9P 463935-65-1P,
 2-[2-(2,5-Diaminophenyl)ethylamino]-5-nitrobenzoic acid Hydrochloride
 463935-67-3P 463935-68-4P 463935-69-5P
 463935-70-8P, 4-[2-(2,5-Diaminophenyl)ethylamino]-3-nitrobenzoic acid Hydrochloride
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as coupling agents in oxidative hair dyes)

IT 90-15-3, 1-Naphthalenol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, 2-Thiophenecarboxaldehyde 100-10-7, 4-Dimethylaminobenzaldehyde 100-52-7, Benzaldehyde, reactions 106-50-3, 1,4-Diaminobenzene, reactions 107-82-4, 1-Bromo-3-methylbutane 108-46-3, 1,3-Dihydroxybenzene, reactions 109-65-9, 1-Bromobutane 120-57-0, 3,4-Methylenedioxybenzaldehyde 122-85-0, 4-Acetylamino-benzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-30-8, 4-Aminophenol 350-46-9, 4-Fluoronitrobenzene 364-73-8, 5-Bromo-2-fluoronitrobenzene 364-74-9, 2,5-Difluoronitrobenzene 364-76-1 446-35-5, 2,4-Difluoronitrobenzene 453-71-4, 4-Fluoro-3-nitrobenzoic acid 498-62-4, Thiophen-3-aldehyde 500-22-1, Pyridin-3-aldehyde 555-16-8, 4-Nitrobenzaldehyde, reactions

587-04-2, 3-Chlorobenzaldehyde 591-27-5, 3-Aminophenol 608-25-3,
 2-Methyl-1,3-dihydroxybenzene 615-50-9 872-85-5, 4-
 Pyridinecarboxaldehyde 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2,
 2-Fluoronitrobenzene 2043-61-0, Cyclohexane-1-aldehyde 2835-95-2,
 5-Amino-2-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 3446-89-7,
 4-Methylsulfanylbenzaldehyde 4701-17-1, 5-Bromothiophen-2-aldehyde
 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6203-18-5, 4-Dimethylamino-
 zimtaldehyde 6921-22-8, 2,3-Difluoronitrobenzene 7304-32-7,
 2-Fluoro-5-nitrobenzoic acid 18791-75-8, 4-Bromothiophen-2-aldehyde
 24424-99-5, Di-tert-butyldicarbonate 51980-54-2, 4-Pyrrolidin-1-
 ylbenzaldehyde 70643-20-8, 1,3-Diamino-4-(2-hydroxyethoxy)benzene
 sulfate 83763-48-8 84540-50-1, 3-Amino-2-chloro-6-methylphenol
 93841-25-9, 2-(2,5-Diaminophenyl)ethanol Sulfate 135043-64-0,
 4-Amino-2-aminomethylphenol dihydrochloride 155601-30-2

334884-86-5 463935-73-1 463935-74-2

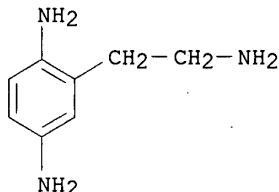
RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as
 coupling agents in oxidative hair dyes)

IT **463935-35-5P**

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (product; prepn. of 2-(2-aminoethyl)-1,4-benzenediamines for use as
 coupling agents in oxidative hair dyes)

RN 463935-35-5 HCPLUS

CN 1,4-Benzenediamine, 2-(2-aminoethyl)-, monohydrochloride (9CI) (CA INDEX
 NAME)



● HCl

L26 ANSWER 8 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:733860 HCPLUS
 DN 137:252674
 TI Synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and their use
 in oxidative hair dyes
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella AG, Germany
 SO Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS C07C215-08; C07C217-00; C07C211-52; C07C211-53; D06P001-32;
 D06P001-645; A61K007-13; C07D207-04; C07D211-06; C07D295-03;
 C07D213-04

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10114084	A1	20020926	DE 2001-10114084	20010322
	WO 2002076923	A1	20021003	WO 2001-EP12124	20011019
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2001010957	A	20030408	BR 2001-10957	20011019
PRAI	DE 2001-10114084	A	20010322		
	WO 2001-EP12124	W	20011019		
OS	MARPAT 137:252674				
AB	The invention concerns the synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and their use as coupling agents in oxidative hair dyes. The hair preps. further contain developers, other coupling agents and direct dyes. Thus 1,3-diamino-4-(methylaminomethyl)-benzene hydrochloride was synthesized and used as a 1.25 mmol coupler ingredient in a hair dye that contained 1.25 mmol 1,4-diamino benzene as developer. Further ingredients were (g); potassium oleate (8% aq. soln.) 1.0; ammonia (22% aq. soln.) 1.0; ethanol 1.0; ascorbic acid 0.3; water to 100.				
ST	diamino aminomethyl benzene derivate oxidative hair dye				
IT	Dyes (direct; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)				
IT	Hair preparations (dyes, oxidative; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)				
IT	460990-06-1P 460990-07-2P 460990-08-3P 460990-09-4P 460990-10-7P 460990-11-8P 460990-12-9P 460990-13-0P 460990-14-1P 460990-15-2P 460990-16-3P 460990-17-4P 460990-18-5P 460990-19-6P 460990-20-9P RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (coupling agent; synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)				
IT	83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxyphephenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,				

1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7,
2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 620-17-7
770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone
1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6,
4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2,
5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0,
5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-
methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 5862-80-6,
4-[(2,3-Dihydroxypropyl)amino]aniline 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4,
6-Bromo-1-hydroxy-3,4-methylenedioxypybenzene 7218-02-2,
1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-
Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 14268-66-7,
3,4-Methylenedioxylaniline 16867-03-1, 2-Amino-3-hydroxypyridine
17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-
dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-
benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
29785-47-5, 4-Amino-2-(methoxymethyl)phenol 39489-79-7,
5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole
53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-
2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
1,4-Diamino-2-aminomethylbenzene 70643-19-5, 2,4-Diamino-1-(2-
hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
71500-42-0, 3-[(2-Hydroxyethyl)amino]aniline 73793-80-3,
1,4-Diamino-2-hydroxymethylbenzene 75513-65-4, 1,3-Diamino-4-(2,3-
dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline
78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0,
4-Amino-2-(aminomethyl)phenol 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-
2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7,
2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic
acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-
hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol
104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline -104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-
dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-
methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-
hydroxyethyl)amino]-1,5-dimethoxybenzene 126335-43-1,

1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
 1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7, Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamo)ethoxy]-1,4-diaminobenzene 207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene

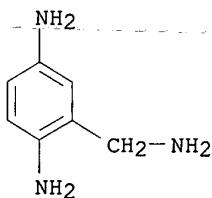
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)

IT 74-89-5, Methylamine, reactions 107-11-9, Allylamine 107-15-3, Ethylene diamine, reactions 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, Ethanolamine, reactions 498-63-5, Prolinol 1001-53-2, N-Acetyl-ethylene diamine 4795-29-3, Tetrahydrofurfuryl amine 5382-16-1, 4-Hydroxypiperidine 6168-72-5, 2-Aminopropanol 6859-99-0, 3-Hydroxypiperidine 24424-99-5, Di-tert-butyl dicarbonate 40499-83-0, 3-Pyrrolidinol 98276-57-4, 2,4-Diaminobenzaldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)

IT 364343-82-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)

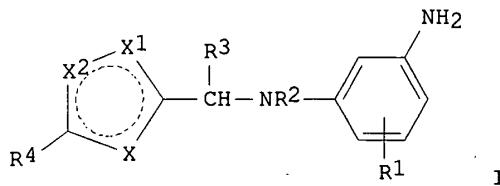
IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (synthesis of 1,3-diamino-4-(aminomethyl)-benzene derivates and use in oxidative hair dyes)

RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:716265 HCAPLUS
 DN 137:249072
 TI Manufacture of N-(heteroaryl methyl)-m-phenylenediamine derivative-containing dyes for **keratin** fibers
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07D333-20
 ICS C07D307-52; C07D233-54; C07D277-28; A61K007-13
 CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 27, 62
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072568	A1	20020919	WO 2001-EP12053	20011018
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
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	DE 10111936	C1	20021002	DE 2001-10111936	20010313
	EP 1280791	A1	20030205	EP 2001-273957	20011018
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	BR 2001010490	A	20030408	BR 2001-10490	20011018
PRAI	DE 2001-10111936	A	20010313		
	WO 2001-EP12053	W	20011018		
OS	MARPAT	137:249072			
GI					



AB A dye developer-coupler combination useful for oxidative dyeing of **keratin** fibers, esp. human **hair**, comprises N-(heteroaryl methyl)-m-phenylenediamine derivs. [I; R1 = H, C1-4 (hydroxy)alkyl, C1-4 hydroxyalkoxy; R2, R3 = H, C1-6 alkyl; R4 = H, halo, cyano, C1-6 alkyl, C1-4 alkoxy, NO₂, amino, etc.; X = S, N, O, CR6, NR5; X1 = S, N, O, CR7, NR5; X2 = S, N, O, CR8, NR5; R5 = H, C1-6 alkyl, Ph, etc.; R6-R8 = any of definitions for R4 (with a proviso)] or their salts

as couplers. For example, stirring 1,3-phenylenediamine with (Me₃CCO)2O in CH₂Cl₂ in the presence of NaOH gave 30% tert-Bu (3-aminophenyl)carbamate. Stirring the latter with thiophene-2-carbaldehyde in MeOH in the presence of mol. sieve and treating the reaction mixt. at 0.degree. with BH₃.cntdot.THF complex gave a dye coupler N-(thiophen-3-ylmethyl)-1,3-diaminobenzene.cntdot.HCl which, in combination with 1,4-diaminobenzene developer and H₂O₂ oxidn. agent, dyed human hair dark blue.

ST phenylenediamine heteroaryl methyl manuf oxidative hair dye coupler; aminophenylcarbamate ester prepn reductive amination oxidative hair dye coupler; thiophenecarbaldehyde reductive amination aminophenylcarbamate ester oxidative hair dye coupler

IT **Hair preparations**
(dyes, oxidative; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT **Keratins**
RL: MSC (Miscellaneous)
(fibers; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for)

IT 24424-99-5, Tert-Butyl dicarbonate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with phenylenediamine; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 108-45-2, 1,3-Phenylenediamine, reactions 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation with tert-Bu dicarbonate; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 460059-56-7P 460059-57-8P 460059-58-9P 460059-59-0P 460059-60-3P
460059-61-4P 460059-62-5P 460059-63-6P 460059-64-7P 460059-65-8P
460059-66-9P 460059-67-0P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye coupler; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 18210-25-8 460059-68-1 460059-69-2 460059-70-5 460059-71-6
460059-72-7 460059-73-8 460059-74-9 460059-75-0 460059-76-1
RL: TEM (Technical or engineered material use); USES (Uses)
(dye coupler; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methyl-benzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, uses 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1, 4-[(2-

Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-Diamino-phenyl)ethanol 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene

RL: TEM (Technical or engineered material use); USES (Uses)
(dye developer; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 68621-88-5P, tert-Butyl (3-aminophenyl)carbamate 325953-48-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manuf. and reductive amination of aldehydes; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 7722-84-1, Hydrogen peroxide, uses

RL: NUU (Other use, unclassified); USES (Uses)
(oxidn. agent; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

IT 98-01-1, Furan-2-carbaldehyde, reactions 98-03-3, Thiophene-2-carbaldehyde 498-60-2, Furan-3-carbaldehyde 498-62-4, Thiophene-3-carbaldehyde 4521-33-9, 5-Nitrothiophene-2-carboxaldehyde 10111-08-7, Imidazole-2-carbaldehyde 10200-59-6, Thiazole-2-carboxaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive amination with (aminophenyl)carbamate ester; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

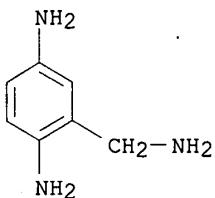
- (1) Henkel Kgaa; EP 0024660 A 1981 HCPLUS
- (2) Henkel Kgaa; EP 0024660 A 1981 HCPLUS
- (3) Kao Corp; EP 0761214 A 1997 HCPLUS
- (4) Kao Corp; EP 0761214 A 1997 HCPLUS
- (5) Oreal; DE 2827658 A 1979 HCPLUS
- (6) Oreal; DE 2827658 A 1979 HCPLUS
- (7) Wella Ag; EP 0963982 A 1999 HCPLUS
- (8) Wella Ag; EP 0963982 A 1999 HCPLUS

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene

RL: TEM (Technical or engineered material use); USES (Uses)
(dye developer; manuf. of N-(heteroaryl methyl)-m-phenylenediamine deriv.-contg. dyes for **keratin** fibers)

RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:714095 HCAPLUS
 DN 137:252662
 TI Oxidative hair dyes containing aldehydes in the dye solution for improving color intensity
 PA Wella Ag, Germany
 SO Ger. Gebrauchsmusterschrift, 36 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20206612	U1	20020919	DE 2002-20206612	20020426
PRAI	DE 2002-20206612				
OS	MARPAT 137:252662				

AB The invention concerns oxidative hair dyes that are mixed before application with a hydrogen peroxide soln. that contains an aldehyde, linear or arom.; the obtained dye soln. excels improved color intensity. Thus a dye mixt. was prep'd. that contained 0.01 mmol 1,4-diamino-2-methylbenzene, 0.01 mmol resorcin and the components (g): EDTA disodium salt 0.3; ascorbic acid 0.3; lauryl ether sulfate 2.8; ethanol (96%) 8.0; ammonia (25 % aq. soln.) 9.0; water to 100. To 20 g of the dye mixt. was mixed with 20 g of 6% hydrogen peroxide in 1% aq. glutaraldehyde. The mixt. was applied to bleached hair for 10 min at 40.degree.C.

ST oxidn hair dye solvent aldehyde color intensity

IT Aldehydes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (aliph.; oxidative hair dyes contg. aldehydes in dye soln.
 for improving color intensity)

IT Aldehydes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (arom.; oxidative hair dyes contg. aldehydes in dye soln. for
 improving color intensity)

IT Dyes

(direct; oxidative hair dyes contg. aldehydes in dye soln.
 for improving color intensity)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes contg. aldehydes in dye
 soln. for improving color intensity)

IT Cis

pH
 (oxidative hair dyes contg. aldehydes in dye soln. for

improving color intensity)

IT Aldehydes, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. aldehydes in dye soln. for

improving color intensity)

IT 66-25-1, Hexanal 75-07-0, Acetaldehyde, biological studies 78-84-2,
 Isobutyraldehyde 80-54-6, p-tert-Butyl-.alpha.-methylhydrocinnamic
 aldehyde 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8,
 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8,
 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5,
 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4,
 2,3-Dihydroxynaphthalene 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline
 93-05-0, 4-Diethylaminoaniline 95-70-5, 1,4-Diamino-2-methylbenzene
 95-88-5, 1-Chloro-2,4-dihydroxybenzene 96-17-3, 2-Methylbutyraldehyde
 97-96-1, 2-Ethylbutyraldehyde 99-07-0, 3-Dimethylaminophenol 99-98-9,
 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 101-86-0,
 2-(Phenylmethylene)octanal 103-95-7 106-23-0, 3,7-Dimethyl-6-octenal
 106-50-3, 1,4-Diaminobenzene, biological studies 107-75-5,
 3,7-Dimethyl-7-hydroxyoctanal 108-45-2, 1,3-Diaminobenzene, biological
 studies 110-62-3, Pentanal 111-30-8, Glutaraldehyde 111-71-7,
 Heptanal 116-26-7, 2,6,6-Trimethyl-1,3-cyclohexadiene-1-carboxaldehyde
 120-57-0, Heliotropin 122-40-7, 2-(Phenylmethylene)heptanal 122-78-1,
 Phenylethanal 123-05-7, 2-Ethylhexanal 123-15-9, 2-Methylpentanal
 123-30-8, 4-Aminophenol 123-38-6, Propionaldehyde, biological studies
 123-72-8, Butanal 124-13-0, Octanal 137-19-9, 1,5-Dichloro-2,4-
 dihydroxybenzene 141-27-5, trans-3,7-Dimethyl-2,6-octadienal 141-86-6,
 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1,
 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 542-78-9,
 Malondialdehyde 557-48-2, (E,Z)-2,6-Nonadienal 575-38-2,
 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 590-86-3,
 Isopentanal 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-
 methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6,
 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-
 pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 1687-53-2,
 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2043-61-0,
 Cyclohexanal 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline
 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3,
 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 2987-16-8,
 3,3-Dimethylbutyraldehyde 3131-52-0, 5,6-Dihydroxyindole 4221-03-8,
 5-Hydroxypentanal 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-
 methylbenzene 5435-64-3, 3,5,5-Trimethylhexanal 5697-02-9,
 2-Methyl-1-naphthol-acetate 5862-80-6, 4-[(2,3-
 Dihydroxypropyl)amino]aniline 6265-21-0, 3-[(2-
 Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene
 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2,
 1,4-Diamino-2,6-dimethylbenzene 7228-00-4, 2-[(3-
 Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen
 peroxide, biological studies 14268-66-7, 3,4-Methylenedioxyaniline
 16251-77-7, 3-Phenylbutyraldehyde 16867-03-1, 2-Amino-3-hydroxypyridine
 26011-57-4, 6-Amino-3,4-dihydro[1,4](2H)-benzoxazine 26021-57-8,
 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0,
 N-(3-Dimethylaminophenyl)-urea 28020-38-4, 2,3-Diamino-6-methoxypyridine
 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-

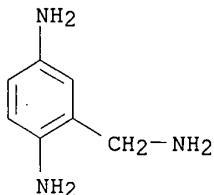
(methoxymethyl)phenol 30897-75-7, Pinoacetaldehyde 36207-16-6
39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 53687-29-9
55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
3-Amino-2,4-dichloro-phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-aminomethylbenzene 68039-49-6,
2,4-Dimethyl-3-cyclohexene-carboxaldehyde 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline
73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 75513-65-4,
1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0,
3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0,
1,3-Di(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic acid
84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
94082-77-6, 2,4-Diamino-1,5-di(2-hydroxyethoxy)benzene 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol
104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 104752-50-3,
1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 105293-89-8, 4-Dipropylaminoaniline
109942-17-8, 2,5-Diaminobiphenyl 110102-86-8, 5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol
111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4,
1,3-Diamino-2,4-dimethoxybenzene 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8, 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 125109-85-5, 3-(3-Isopropylphenyl)butanal
126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6,
1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
1,4-Bis[(4-aminophenyl)amino]butane 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol
146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6,
2,6-Bis(2-hydroxyethyl)aminotoluene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168092-23-7,
Di(2,4-diaminophenoxy)methane 168202-61-7, 4-Amino-3-(hydroxymethyl)-phenol -207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene
207923-07-7, 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7
306959-12-6, 1,4-Diamino-2-(pyridin-3-yl)benzene 307493-94-3,
1,3-Diamino-4-(3-hydroxypropoxy)benzene 329320-36-7,
1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 365533-47-7 460331-12-8
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes contg. aldehydes in dye soln. for improving color intensity)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes contg. aldehydes in dye soln. for improving color intensity)

RN 67199-87-5 HCAPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:714094 HCAPLUS
DN 137:252661
TI Oxidative hair dyes containing 2,3-diaminophenol derivatives as coupling agents
PA Wella Ag, Germany
SO Ger. Gebrauchsmusterschrift, 42 pp.
CODEN: GGXXFR
DT Patent
LA German
IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20206274	U1	20020919	DE 2002-20206274	20020420
PRAI DE 2002-20206274		20020420		
OS MARPAT 137:252661				

AB The invention concerns oxidative hair dyes that contain 2,3-diaminophenol derivs. as coupling agents; further the dyes contain developers and direct dyes. Thus 3-amino-2-(2-hydroxyethylamino)phenol dihydrochloride was synthesized and 1.25 mmol of the compd. was used in a hair dye compn. that further contained: 1.25 mmol 2,5-diaminotoluene sulfate; 10.0 g lauryl ether sulfate; 9.0 g ammonia (22% soln.); 7.8 g ethanol; 0.3 g ascorbic acid; 0.3 g EDTA disodium salt; water to 100 g.

ST diaminophenol derivate coupler oxidn hair dye

IT Dyes

(direct; oxidative hair dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT Coupling agents

pH (oxidative hair dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT 7732-18-5, Water, properties
 RL: PRP (Properties)
 (casreact)

IT 59649-56-8, 2,3-Diaminophenol
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (derivs.; oxidative hair dyes contg. 2,3-diaminophenol
 derivs. as coupling agents)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6
 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 533-73-3, 1,2,4-Trihydroxybenzene 611-24-5, 2-Methylaminophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-98-5, 6-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 6-Amino-2-methylphenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 53981-24-1 53981-25-2 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline 67199-87-5, 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-hydroxymethylbenzene 87700-93-4 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline 109942-17-8, 2,5-Diaminobiphenyl 114484-31-0 122196-12-7, 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 207568-58-9, 2-[2-(Acetylamino)ethoxy]-1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 460049-84-7 460049-85-8 460049-87-0 460049-88-1 460049-89-2 460049-90-5 460049-92-7 460049-94-9 460049-96-1 460049-98-3 460050-00-4 460050-02-6 460050-04-8 460050-08-2 460050-09-3 460050-10-6 460050-11-7 460050-12-8
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 2,3-diaminophenol derivs. as coupling agents)

IT 460050-15-1P 460050-16-2P 460050-17-3P 460050-18-4P 460050-19-5P
 460050-20-8P 460050-21-9P 460050-22-0P 460050-23-1P 460050-25-3P
 460050-27-5P 460050-28-6P 460050-29-7P 460050-30-0P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dyes contg. 2,3-diaminophenol derivs. as coupling agents)

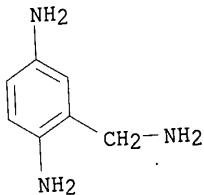
IT 109-85-3, 2-Methoxyethylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, 2-Ethanolamine, reactions 556-53-6, n-Propylamine hydrochloride 557-66-4, Ethylamine hydrochloride 616-30-8, 3-Amino-1,2-propanediol 929-06-6, 2-(2-Hydroxyethoxy)-ethylamine 5382-16-1, 4-Piperidinol 57260-73-8 62848-20-8, 3-Methoxypyrrolidine 68621-88-5 71026-66-9 101935-40-4,

2-Bromo-3-nitrophenol 460050-14-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative hair dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)

IT 460050-13-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxidative hair dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 2,3-diaminophenol derivs. as
 coupling agents)

RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 12 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:615598 HCPLUS

DN 137:174510
 TI Oxidative hair dyes containing 1,3-diamino-4-heteroarylbenzene derivatives and novel 1,3-diamino-4-heteroarylbenzene derivatives
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 33 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07D333-20
 ICS C07D277-28; A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 27

FAN.CNT 1	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002062783	A1	20020815	WO 2001-EP10411	20010910
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1261599	A1	20021204	EP 2001-960727	20010910
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
 BR 2001009607 A 20030204 BR 2001-9607 20010910
 US 2003093867 A1 20030522 US 2002-169120 20020626
 PRAI DE 2001-10104768 A 20010202
 WO 2001-EP10411 W 20010910.

OS MARPAT 137:174510

AB The invention concerns oxidative hair dyes that contg. 1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable, water-sol. salts as coupling dyes; the hair dyes further contain developers, other coupling dyes and direct dyes. Thus 1,3-Diamino-4-(thiophene-2-yl)benzene hydrochloride was synthesized and used in a hair dye prepn. as a 0.1 g ingredient; other components were (g): 1,4-diaminobenzene 0.30; 1,3-dihydroxy benzene 0.20; 3-aminophenol 0.05;potassium oleate (8% aq.soln.) 10.0; ammonia (22% aq.soln.) 10.0; ethanol 10.0; ascorbic acid 0.3; water to 100.0.

ST oxidative hair dye diamino heteroaryl benzene deriv

IT Dyes (direct; oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT Hair preparations (dyes, oxidative; oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT pH (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

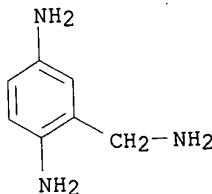
IT 7732-18-5, Water, properties
 RL: PRP (Properties)
 (casreact)

IT 14221-01-3 72287-26-4
 RL: CAT (Catalyst use); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9, 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxy benzene 99-98-9, 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 1,3-Dihydroxy benzene, biological studies 128-46-3, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol 150-75-4, 4-Amino-2-fluoro-phenol 533-31-3, 3,4-Methylenedioxy phenol 399-96-2, 4-Amino-2-fluoro-phenol 608-25-3, 2-Methyl-1,3-dihydroxy benzene 591-27-5, 3-Aminophenol 615-66-7, 2-Chloro-1,4-diaminobenzene 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone Tetraaminopyrimidine 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5697-02-9, 1-Acetoxy-2-methyl-naphthalene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological studies 17672-22-9, 2-Amino-6-methylphenol 26455-21-0, N-(3-Dimethylamino)phenylurea 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole

56216-28-5, 3,5-Diamino-2,6-dimethoxy-pyridine dihydrochloride
 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
 1,4-Diamino-2-aminomethylbenzene 70643-20-8, 1,3-Diamino-4-(2-
 hydroxyethoxy)-benzene sulfate 73793-80-3, 1,4-Diamino-2-
 hydroxymethylbenzene 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane
 hydrochloride 79352-72-0, 4-Amino-2-(aminomethyl)phenol
 tetrahydrochloride 83763-48-8, 2-Amino-4-(2-hydroxyethylamino)-anisole sulfate 84540-50-1,
 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-
 methoxy-pyridine 94158-14-2, 4-(2-Hydroxyethyl)amino-1,2-
 methylenedioxybenzene hydrochloride 97902-52-8, 1,4-Diamino-2-(1-
 methylethyl)benzene 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol
 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9,
 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-Diisopropylaminoaniline
 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
 hydroxyethyl)aminomethylphenol 126335-43-1, 1,4-Diamino-2-(2-
 hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
 hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
 hydroxyethyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-
 Aminophenyl)amino]butane 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
 1,4-diaminobenzene 217311-43-8, 2,4-Diamino-5-fluoro-toluene sulfate
 244104-61-8 246244-41-7 306959-12-6 329320-36-7,
 1-(2,5-Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-
 methoxymethylbenzene 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-
 methylphenol sulfate 446234-23-7 446234-24-8
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 108609-83-2P 446234-20-4P 446234-21-5P 446234-22-6P
 RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 364343-81-7P 446032-91-3P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
 (Preparation); RACT (Reactant or reagent)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 IT 128-08-5, N-Bromosuccinimide 1003-09-4, 2-Bromo thiophene 3034-53-5,
 2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9,
 2-Bromo-3-methyl-thiophene 59255-77-5 73183-34-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)
 RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Air Prod. & Chem; EP 0272650 A 1988 HCPLUS
 (2) Bugaut, A; US 4324553 A 1982 HCPLUS
 (3) Gonzalez, V; QUIM ANAL (BARCELONA) 1986, V5(3), P335 HCPLUS
 (4) Oreal; EP 0667143 A 1995 HCPLUS
 (5) Wella Ag; DE 3132885 A 1983 HCPLUS
 IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:615366 HCAPLUS
 DN 137:159005
 TI Oxidative hair dyes containing (1.1'-biphenyl)-2,4-diamine derivatives in addition to novel (1.1'-biphenyl)-2,4-diamine-derivatives
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 45 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 ICS C07C215-74; C07C217-80; C07C209-52; C07C255-58; C07C225-22;
 C07C323-31; C07D317-58
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

FAN.CNT 1		PATENT NO.		KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002062307			A1	20020815	WO 2001-EP10409	20010910
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
	DE 10104770			C1	20021017	DE 2001-10104770	20010202
	BR 2001009744			A	20030204	BR 2001-9744	20010910
PRAI	DE 2001-10104770			A	20010202		
	WO 2001-EP10409			W	20010910		
OS	MARPAT	137:159005					
AB	The invention relates to coloring agents hair contg. [1.1'-biphenyl]-2,4-diamine derivs. or their physiol. acceptable water sol. salts in addn. to novel [1.1'-biphenyl]-2,4-diamine derivs. Thus biphenyl-2,4,4'-triamine hydrochloride was synthesized and use in a hair dye as a 1.25 mmol component that further contained: 1.25 mmol 1,4-diaminobenzene; potassium oleate (8% aq.soln.) 1.0 g; ammonia (22% aq.soln.) 1.0 g; ethanol 1.0 g; ascorbic acid 0.3 g; water to 100 g.						
ST	oxidative hair dye biphenyl diamine deriv						
IT	Hair preparations						

(dyes, oxidative; oxidative hair dyes contg.
 (1.1'-biphenyl)-2,4-diamine derivs. in addn. to novel
 (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 7732-18-5, Water, properties
 RL: PRP (Properties)
 (casreact)

IT 14221-01-3, Pd(pph₃)₄ 72287-26-4
 RL: CAT (Catalyst use); USES (Uses)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-52-4D, Biphenyl, derivs. 92-65-9,
 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline
 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 99-98-9,
 4-Dimethylaminoaniline 101-54-2, 4-Phenylaminoaniline 106-50-3,
 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluoro-phenol
 399-96-2, 4-Amino-2-fluoro-phenol 615-66-7, 2-Chloro-1,4-diaminobenzene
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-
 pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-69-0,
 [1,1'-Biphenyl]-2,4,4'-triamine 2835-96-3, 4-Amino-2-methylphenol
 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-
 dimethylbenzene 5862-80-6, 4-[2,3-Dihydroxypropyl]amino]aniline
 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2,
 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-
 hydroxyethyl)amino]aniline 7722-84-1, Hydrogen peroxide, biological
 studies 16069-32-2, Biphenyl-2,4-diamine 17672-22-9,
 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol
 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 66566-48-1,
 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
 1,4-Diamino-2-aminomethylbenzene 73793-80-3, 1,4-Diamino-2-
 hydroxymethylbenzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 96886-30-5
 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6,
 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
 Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
 hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-
 hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
 hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
 Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-
 pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
 1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6
 337906-36-2, 1,4-Diamino-2-methoxymethylbenzene 443753-63-7,
 4-Benz[1,3]dioxol-5-yl-benzene-1,3-diamine 446033-16-5 446033-19-8
 446033-20-1
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 446032-92-4P 446032-93-5P 446032-95-7P 446032-96-8P 446032-97-9P
 446032-98-0P 446032-99-1P 446033-00-7P 446033-02-9P 446033-04-1P
 446033-06-3P 446033-08-5P 446033-10-9P 446033-12-1P 446033-13-2P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

IT 364343-81-7P 446032-91-3P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

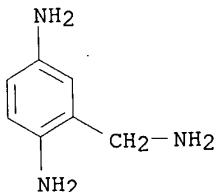
IT 104-95-0 106-38-7, 4-Bromotoluene 106-39-8, 4-Bromochlorobenzene
 106-40-1, 4-Bromo-aniline 106-41-2, 4-Bromophenol 108-86-1,
 Bromobenzene, reactions 128-08-5 402-43-7, 4-Bromo-
 trifluoromethylbenzene 460-00-4, 4-Fluoro-1-bromobenzene 576-22-7,
 Benzene, 2-bromo-, 1,3-dimethyl- 577-19-5, 2-Bromonitrobenzene
 586-78-7, 4-Bromonitrobenzene 591-20-8, 3-Bromophenol 623-00-7,
 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0,
 3-Bromoanisole 2635-13-4 59255-77-5 73183-34-3 446032-94-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
 (1) Aravamuthan, S; JOURNAL OF APPLIED ELECTROCHEMISTRY 1989, V19(6), P897
 HCAPLUS
 (2) Bayer Ag; DE 2232095 A 1974 HCAPLUS
 (3) Blank, W; US 3619399 A 1971 HCAPLUS
 (4) Sandoz Ltd; GB 1425064 A 1976 HCAPLUS
 (5) Wella Ag; WO 9959527 A 1999 HCAPLUS

IT 67199-87-5, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. (1.1'-biphenyl)-2,4-diamine
 derivs. in addn. to novel (1.1'-biphenyl)-2,4-diamine-derivs.)

RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN

AN 2002:607525 HCAPLUS

DN 137:159001

TI Oxidative hair dyes containing 1,3-diamino-5-heteroaryl benzene
 derivatives and synthesis of these dyes

PA Wella Ag, Germany

SO Ger. Gebrauchsmusterschrift, 36 pp.

CODEN: GGXXFR

DT Patent

LA German

IC ICM C07D333-06

ICS C07D333-26; C07D277-02; A61K007-13; C07D307-34; C07D207-30;
C07D233-54

CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27

FAN.CNT 2		KIND	DATE	APPLICATION NO.	DATE
	PATENT NO.				
PI	DE 20203720	U1	20020814	DE 2002-20203720	20020307
	DE 10114425	C1	20020822	DE 2001-10114425	20010324
PRAI	DE 2001-10114425	IA	20010324		

OS MARPAT 137:159001

AB The invention concerns oxidative hair dyes that contg. 1,3-diamino-4-heteroarylbenzene derivs. or their physiol. acceptable, water-sol. salts as coupling agents and developers; the hair dyes also can contain other coupling dyes and direct dyes. Thus 1,3-Diamino-5-(thiophene-2-yl)benzene hydrochloride was synthesized and used in a hair dye prepn. as a 1.25 mmol ingredient; other components were: 1,4-diaminobenzene 1.25 mmol; potassium oleate (8% aq. soln.) 1.0 g; ammonia (22% aq. soln.) 1.0 g; ethanol 1.0 g; ascorbic acid 0.3 g; water to 100.0.

ST oxidative hair dye diamino heteroaryl benzene deriv

IT Dyes (direct; oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT Hair preparations (dyes, oxidative; oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT pH (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 7732-18-5, Water, properties

RL: PRP (Properties)
(casreact)

IT 14221-01-3 72287-26-4

RL: CAT (Catalyst use); USES (Uses)
(oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indoline dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-55-6, 2-Aminophenol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphephenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthol-acetate 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxyphephenol 7228-00-4,

2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol
 7722-84-1, Hydrogen peroxide, biological studies 14268-66-7,
 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine
 17672-22-9, 2-Amino-6-methylphenol 26011-57-4, 6-Amino-3,4-
 dihydro[1,4](2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-
 benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl) urea 28020-38-4,
 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
 39489-79-7, 5-Amino-2,4-dichloro-phenol 45514-38-3, 4,5-Diamino-1-methyl-
 1H-pyrazole 53222-92-7, 3-Amino-2-methylphenol 55302-96-0,
 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
 3-Amino-2,4-dichloro-phenol 70643-19-5, 2,4-Diamino-1-(2-
 hydroxyethoxy)benzene 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
 71500-41-9, 4-Amino-2-di[(2-hydroxyethyl)amino]-1-ethoxybenzene
 71500-42-0, 3-[Di(2-hydroxyethyl)amino]aniline 75513-65-4,
 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-
 methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-
 methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
 81892-72-0, 1,3-Di(2,4-diaminophenoxy)propane 83763-47-7,
 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxy acetic
 acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-
 hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-di(2-
 hydroxyethoxy)benzene 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8,
 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
 dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8,
 2,4-Di[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 137290-78-9,
 5-Amino-4-methoxy-2-methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-
 4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol
 141614-04-2, 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-
 Methoxyethyl)amino]phenol 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-
 methylphenol 149330-25-6, 2,6-Bis(2-hydroxyethyl)aminotoluene
 168092-23-7, Di(2,4-diaminophenoxy)methane 207923-07-7,
 5-Amino-2-ethylphenol 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
 benzodioxole 307493-94-3, 1,3-Diamino-4-(3-hydroxypropoxy)benzene
 446017-84-1 446017-85-2 446017-86-3 446017-87-4 446017-88-5
 446017-89-6 446017-90-9 446017-91-0 446017-92-1 446017-93-2
 446017-94-3 446017-95-4 446017-96-5 446017-97-6 446017-98-7
 446017-99-8 446018-00-4 446018-01-5 446018-02-6 446018-03-7
 446018-04-8 446018-05-9 446018-06-0 446018-07-1 446018-08-2
 446018-09-3 446018-10-6 446018-11-7 446018-12-8 446018-13-9
 446018-14-0 446018-15-1 446018-16-2 446018-17-3
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene.
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 446017-78-3P 446017-79-4P 446017-80-7P 446017-81-8P 446017-82-9P
 446017-83-0P

RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 364038-88-0P 443753-62-6P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

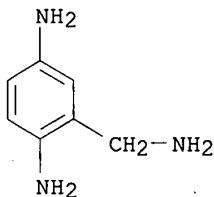
IT 872-31-1, 3-Bromo thiophene 1003-09-4, 2-Bromo thiophene 3034-53-5,
 2-Bromo-thiazole 13195-50-1, 2-Bromo-5-nitro-thiophene 14282-76-9,
 2-Bromo-3-methyl-thiophene 33786-90-2 40032-73-3, 3-Bromo-2'-chloro-
 thiophene 53119-60-1, 2-Bromo-4-methyl-thiophene 73183-34-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative hair dyes contg. 1,3-diamino-4-heteroarylbenzene
 derivs. and novel 1,3-diamino-4-heteroarylbenzene derivs.)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[Ethyl(2-
 hydroxyethyl)amino]aniline 93-05-0, 4-Diethylaminoaniline 95-70-5,
 1,4-Diamino-2-methylbenzene 99-98-9, 4-Dimethylaminoaniline 101-54-2,
 4-Phenylaminoaniline 106-50-3, 1,4-Diaminobenzene, biological studies
 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 399-95-1,
 4-Amino-3-fluoro-phenol 399-96-2, 4-Amino-2-fluoro-phenol 615-66-7,
 2-Chloro-1,4-diaminobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1,
 1,4-Diamino-3,5-diethylbenzene 2359-52-6, 4-[Di(2-hydroxyethyl)amino]-2-
 methylaniline 2835-96-3, 4-Amino-2-methylphenol 2835-99-6,
 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7,
 1,4-Diamino-2,3-dimethylbenzene 5862-80-6, 4-[(2,3-
 1,4-Diamino-2,3-dimethylbenzene 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene
 Dihydroxypropyl)amino]aniline 7218-02-2, 1,4-Diamino-2,6-dimethylbenzene 7575-35-1,
 4-[Di(2-hydroxyethyl)amino]aniline 29785-47-5, 4-Amino-2-
 (methoxymethyl)phenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-aminomethylbenzene 73793-80-3,
 1,4-Diamino-2-hydroxymethylbenzene 79352-72-0, 4-Amino-2-
 (aminomethyl)phenol 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene
 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
 Hydroxypropyl)amino]aniline 105293-89-8, 4-Dipropylaminoaniline
 109942-17-8, 2,5-Diaminobiphenyl 110952-46-0, 4-Amino-2-[(2-
 hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-
 hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-
 hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-
 Aminophenyl)amino]butane 155601-16-4, 4,5-Diamino-1-[(1-methylethyl)-1H-
 pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole
 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole
 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
 1,4-diaminobenzene 244104-61-8 246244-41-7 306959-12-6
 329320-36-7, 1-(2,5-Diaminophenyl)ethanol 337906-36-2,
 1,4-Diamino-2-methoxymethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-5-heteroaryl benzene
 derivs. and synthesis of dyes)

IT 446017-77-2P
 RL: COS (Cosmetic use); PRP (Properties); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dyes contg. del 71,3-diamino-4-
 heteroarylbenzene derivs. and novel 1,3-diamino-4-heteroarylbenzene
 derivs.)

IT **67199-87-5**, 1,4-Diamino-2-aminomethylbenzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes contg. 1,3-diamino-5-heteroaryl benzene

derivs. and synthesis of dyes)
 RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)

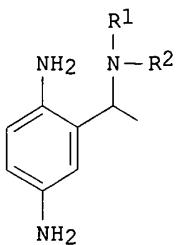


L26 ANSWER 15 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:574866 HCPLUS
 DN 137:129534
 TI Primary intermediates for oxidative coloration of hair
 IN Lim, Mu-Ill; Pan, Yuh-guo
 PA Clairol Incorporated, USA
 SO PCT Int. Appl., 52 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25

applicants

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002058632	A2	20020801	WO 2002-US1621	20020118
	WO 2002058632	A3	20030403		
				W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM	
				RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	
	US 2002144357	A1	20021010	US 2002-52321	20020118
PRAI	US 2001-263567P	P	20010123		
OS	MARPAT	137:129534			
GI					



AB Primary intermediates of hair coloring compns. of hair oxidative of hair are compds. of the formula [I]: where R1 and R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl group, a C1 to C5 mono or dihydroxyalkyl group; Ph or benzyl optionally substituted with an alkoxy group, or R1 and R2 together with the nitrogen atom to which they are attached form a piperazine, piperidine, imidazole, or morpholine ring.

ST hair dye primary intermediate oxidn benzenediamine

IT Oxidizing agents
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT Hair preparations
(dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5,
2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol,
biological studies 123-30-8, 4-Aminophenol 150-75-4,
4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3,
2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1,
1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5,
2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4,
2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol
17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4,
4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7,
3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-
methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7
93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3
131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3,
3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT 444177-65-5P 444177-66-6P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT 32580-41-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT 444177-67-7P 444177-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

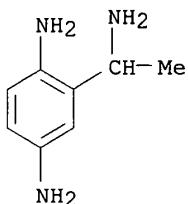
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

IT 444177-65-5P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative coloration of hair)

RN 444177-65-5 HCPLUS

CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 16 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN

AN 2002:553048 HCPLUS

DN 137:109116

TI (1,1'-Biphenyl)-3,5-diamine derivatives containing coloring agent as well as new (1,1'-biphenyl)-3,5-diamine derivatives for the oxidative coloring of keratin fibers

PA Wella A.-G., Germany

SO Ger. Gebrauchsmusterschrift, 41 pp.

CODEN: GGXXFR

DT Patent

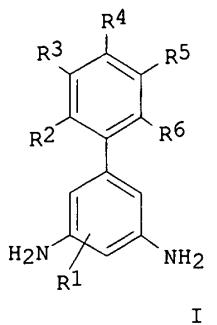
LA German

IC ICM C07C211-51

ICS C07C215-68; C07C217-80; C07C225-22; C07C255-49; C07C323-31;
D06P001-32; C07D317-48CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 40, 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20202609	U1	20020725	DE 2002-20202609	20020220
PRAI	DE 2001-10111937	IA	20010313		
OS	MARPAT	137:109116			
GI					



AB A medium for the oxidative coloring of **keratin** fibers on the basis of a developer/generator substance coupling agent combination, is characterized by the fact that it has as coupling agent at least 1,1'-Biphenyl-3,5-diamine deriv., e.g., I [R1 = H, halogen, C1-4-alkoxy, C1-4-hydroxyalkoxy, a C1-6-alkyl, C1-4-alkylthio, CF3, SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl; R2, R3, R4, R5, R6 = H, halogen, CN, OH, C1-4-alkoxy, C1-4-hydroxyalkoxy, C1-6-alkyl, C1-4-alkylthio, SH, NO2, NH2, C1-4-monoalkylamino, di(C1-4-alkyl)amino, CF3, CHO, C(O)Me, C(O)CF3, a SiMe3, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, -CH:CHR7, (CH2)pCO2R8, (CH2)pR9, a -C(R10):NR11, CH(R13)NR14R15; R2R3, R5R6 = OCH2O; R7 = H, NO2, CO2R8, -C(O)Me; R8, R10, R13 = H, C1-4-alkyl; R9 = NH2, CN; R11, R14, R15 = H, OH, C1-4-alkyl, C1-4-hydroxyalkyl, C2-4-dihydroxyalkyl, C6H4R12; R12 = H, NH2, OH; p = 1, 2, 3 or 4] or its salt with an inorg. or org. acid have no inversion center. Thus, (1,1'-Biphenyl)-3,5-diamine hydrochloride (I.cndot.HCl; R1 - R6 = H) was prep'd. from 5-bromo-1,3-phenylenediamine via protection with di(tert-butyl) dicarbonate, palladium-catalyzed coupling with 4,4,5,5',4',4',5',5'-octamethyl[2,2']bi[[1,3,2]dioxaborolanyl], palladium-catalyzed coupling of the resulting borolane with PhBr, and deprotection with HCl in EtOH.

ST biphenyldiamine deriv coloring agent prepn; **keratin** fiber oxidative coloring agent biphenyldiamine deriv

IT Amines, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (arom., biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT Aromatic compounds
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (biphenyl diamines; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT Hair preparations
 (dyes; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT **Keratins**
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (fibers, oxidative coloring of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT Coloring materials
 (prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 73183-34-3, 4,4,5,5,4',4',5',5'-Octamethyl-[2,2']bi[[1,3,2]dioxaborolanyl]

RL: RCT (Reactant); RACT (Reactant or reagent)
 (Pd.-catalyzed coupling with N,N'-Bis(BOC)phenylenediamine; prepn. of
 (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the
 oxidative coloring of **keratin** fibers)

IT 104-95-0, 1-Bromo-4-(methylsulfanyl)benzene 106-38-7, 4-Bromotoluene
 106-40-1, 4-Bromoaniline 106-41-2, 4-Bromophenol 108-86-1,
 Bromobenzene, reactions 402-43-7, 4-Bromo-.alpha.,.alpha.,.alpha.-trifluorotoluene 460-00-4, 4-Bromo-1-fluorobenzene 576-22-7,
 2-Bromo-m-xylene 577-19-5, 2-Bromo-1-nitrobenzene 586-78-7,
 4-Bromo-1-nitrobenzene 591-20-8, 3-Bromophenol 623-00-7,
 4-Bromobenzonitrile 2142-63-4, 3-Bromoacetophenone 2398-37-0,
 3-Bromoanisole 2635-13-4, 5-Bromobenzo[1,3]dioxole 29682-39-1,
 1-Bromo-2-chloro-4-nitrobenzene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (Pd.-catalyzed coupling with [1,3,2]dioxaborolan-1-ylphenylenediamine; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin** fibers)

IT 89-57-6, 5-Aminosalicylic acid 90-15-3, 1-Naphthol 92-65-9,
 4-[Ethyl(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline
 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-72-7,
 2-Chloro-1,4-dimethylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene
 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline
 106-50-3, 1,4-Diaminobenzene, biological studies 108-46-3,
 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol
 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-(Methylenedioxy)phenol
 591-27-5, 3-Aminophenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene
 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4-(1H)-pyrimidone 1630-11-1, 1,4-Diamino-3,5-diethylbenzene 2359-52-6,
 4-[Di(2-hydroxyethyl)amino]-2-methylaniline 2835-95-2,
 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 4318-76-7,
 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
 5697-02-9, 1-Acetoxy-2-methylnaphthalene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline 6369-59-1, 2,5-Diaminotoluene sulfate
 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2,
 1,4-Diamino-2,6-dimethylbenzene 7575-35-1, 4-[Di(2-hydroxyethyl)amino]aniline 17672-22-9, 2-Amino-6-methylphenol
 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3,
 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene 70643-20-8,
 1,3-Diamino-4-(2-hydroxyethoxy)benzene sulfate 73793-80-3,
 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 83763-48-8, 2-Amino-4-[(2-hydroxyethyl)amino]anisole
 sulfate 84540-50-1, 3-Amino-2-chloro-6-methylphenol 88209-80-7,
 3,5-Diamino-(1,1'-biphenyl)-4-ol 91391-76-3, (1,1'-Biphenyl)-3,5-diamine
 93841-25-9, 2-(2,5-Diaminophenyl)ethanol sulfate 94158-14-2,
 4-[(2-Hydroxyethyl)amino]-1,2-(methylenedioxy)benzene hydrochloride
 96886-30-5 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene
 104333-08-6, 4-Amino-2-(2-hydroxyethyl)phenol 104333-09-7,
 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline
 109942-17-8, 2,5-Diamino-1,1'-biphenyl 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 131657-78-8, 6-Chloro-2-(ethylamino)-4-

nitrophenol 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride
 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5,
 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2,
 4,5-Diamino-1-(2-hydroxyethyl)pyrazole sulfate 157469-54-0,
 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1,
 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159661-45-7,
 1,8-Bis[(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7,
 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-[2-(Acetylamino)ethoxy]-
 1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(thien-2-yl)benzene
 246244-41-7, 1,4-Diamino-2-(thien-3-yl)benzene 306959-12-6,
 1,4-Diamino-2-(pyridin-3-yl)benzene 329320-36-7, 1-(2,5-
 Diaminophenyl)ethanol 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene
 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 443753-63-7,
 4-[Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine 443753-64-8,
 4'-Fluoro-1,1'-biphenyl-3,5-diamine 443753-65-9, 4'-Amino-1,1'-biphenyl-
 3,5-diamine 443753-66-0, 3'-Hydroxy-1,1'-biphenyl-3,5-diamine
 443753-67-1, 4'-Methoxy-1,1'-biphenyl-3,5-diamine
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dye component; prepn. of (1,1'-biphenyl)-3,5-diamine
 derivs. as coloring agents for the oxidative coloring of
 keratin fibers)

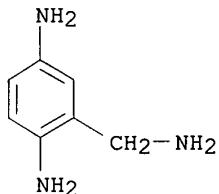
IT 443753-46-6P, (1,1'-Biphenyl)-3,5-diamine hydrochloride 443753-47-7P,
 (1,1'-Biphenyl)-3,5,4'-triamine hydrochloride 443753-48-8P,
 3',5'-Diamino-1,1'-biphenyl-4-ol hydrochloride 443753-49-9P,
 4'-Methyl-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-50-2P,
 3',5'-Diamino-1,1'-biphenyl-4-carbonitrile hydrochloride 443753-51-3P,
 4'-Nitro-(1,1'-biphenyl)-3,5-diamine hydrochloride 443753-52-4P,
 4'-Trifluoromethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride
 443753-53-5P, [5-Benzo[1,3]dioxol-5-yl]benzene-1,3-diamine hydrochloride
 443753-54-6P, 4'-Fluoro-(1,1'-biphenyl)-3,5-diamine hydrochloride
 443753-55-7P, 2',4'-Dimethyl-(1,1'-biphenyl)-3,5-diamine hydrochloride
 443753-56-8P, 3',5'-Diamino-1,1'-biphenyl-3-ol hydrochloride
 443753-57-9P, 1-(3',5'-Diamino-1,1'-biphenyl-3-yl)ethanone hydrochloride
 443753-58-0P, 2'-Nitro-1,1'-biphenyl-3,5-diamine hydrochloride
 443753-59-1P, 3'-Methoxy-1,1'-biphenyl-3,5-diamine hydrochloride
 443753-60-4P, 4'-Methylsulfanyl-1,1'-biphenyl-3,5-diamine hydrochloride
 443753-61-5P, 2'-Chloro-4'-nitro-1,1'-biphenyl-3,5-diamine hydrochloride
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (hair dye component; prepn. of (1,1'-biphenyl)-3,5-diamine
 derivs. as coloring agents for the oxidative coloring of
 keratin fibers)

IT 18242-39-2, 1-Bromo-3,5-dinitrobenzene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (nitro group redn. of; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as
 coloring agents for the oxidative coloring of keratin fibers)

IT 443753-62-6P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and Pd.-catalyzed coupling with bromobenzene; prepn. of
 (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the
 oxidative coloring of keratin fibers)

IT 364038-88-0P, tert-Butyl [5-bromo-3-(tert-butoxycarbonylamino)phenyl]carba-
 mic acid
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and Pd.-catalyzed coupling with octamethyl[2,2']bi[[1,3,2]dioxa
 borolanyl]; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring

agents for the oxidative coloring of **keratin fibers**)
 IT 33786-90-2P, 5-Bromo-1,3-phenylenediamine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and protection with di(tert-butyl) dicarbonate; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin fibers**)
 IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dye component; prepn. of (1,1'-biphenyl)-3,5-diamine derivs. as coloring agents for the oxidative coloring of **keratin fibers**)
 RN 67199-87-5 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2002:465768 HCAPLUS
 DN 137:37385
 TI Aminophenol compounds as couplers in oxidative hair dyeing
 IN Lim, Mu-Ill; Pan, Yuh-Guo; Popp, Margaret
 PA Clairol Incorporated, USA
 SO PCT Int. Appl., 51 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A61K007-13
 ICS C07C211-44
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002047635	A1	20020620	WO 2001-US46464	20011207
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 6409773	B1	20020625	US 2000-736913	20001214
	AU 2002028800	A5	20020624	AU 2002-28800	20011207
PRAI	US 2000-736913	A	20001214		
	WO 2001-US46464	W	20011207		

OS MARPAT 137:37385

AB Aminophenol compds. are described as novel orange couplers for use in hair coloring compns. comprising one or more oxidative hair coloring agents in combination with one or more oxidizing agents. These novel couplers provide for dyeing of hair that provides color or shades that possess good wash fastness and do not undergo the significant changes on exposure to light or shampooing as experienced with 5-amino-2-methylphenol. The novel couplers are prep'd. by a reaction of an aminophenol with an appropriate ketone in the presence of suitable reducing agent, such as sodium triacetoxyborohydride or sodium borohydride. For example, 5-(1-cyclopropylethylamino)-2-methylphenol was prep'd. as its trifluoroacetate (TFA) salt by reacting cyclopropyl Me ketone (40.4 mg, 0.48 mmole) with 5-amino-2-methylphenol (49.3 mg, 0.40 mmole) in anhyd. 1,2-dichloroethane soln. in presence of 1% acetic acid at room temp. using sodium triacetoxyborohydride (169.9 mg, 0.80 mmole) as reducing agent.

ST aminophenol compd prep'n coupler oxidative hair dye

IT Hair preparations
(dyes, oxidative; oxidative hair dye compns. contg. aminophenol compds. as couplers)

IT Human
Oxidizing agents
(oxidative hair dye compns. contg. aminophenol compds. as couplers)

IT Reducing agents
(prep'n. of aminophenol compds. as couplers in oxidative hair dyeing)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5, 2-Methylbenzene-1,4-diamine 106-50-3, p-Phenylenediamine, biological studies 108-45-2, Benzene-1,3-diamine, biological studies 108-46-3, Benzene-1,3-diol, biological studies 123-30-8, 4-Aminophenol 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, Pyrimidinetetramine 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 7722-84-1, Hydrogen peroxide, biological studies 17672-22-9, 2-Amino-6-methylphenol 67199-87-5 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 129697-50-3 155601-17-5 220264-58-4 220264-60-8 244104-61-8 246244-41-7 329320-36-7
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dye compns. contg. aminophenol compds. as couplers)

IT 2835-95-2, 5-Amino-2-methylphenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative hair dye compns. contg. aminophenol compds. as couplers)

IT 437702-27-7P 437702-28-8P 437702-29-9P 437702-30-2P 437702-31-3P
437702-32-4P 437702-33-5P 437702-34-6P 437702-35-7P 437702-36-8P
437702-37-9P
RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prep'n. of aminophenol compds. as couplers in oxidative hair dyeing)

IT 765-43-5, Cyclopropyl methyl ketone
RL: RCT (Reactant); RACT (Reactant or reagent)
(prep'n. of aminophenol compds. as couplers in oxidative hair

dyeing)

IT 16940-66-2, Sodium borohydride 56553-60-7, Sodium triacetoxyborohydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reducing agent; prepn. of aminophenol compds. as couplers in oxidative
 hair dyeing)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

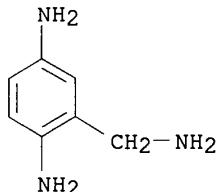
(1) Andrillon; US 4065255 1977

(2) Audouset; US 6004356 1999 HCPLUS

IT 67199-87-5
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dye compns. contg. aminophenol compds. as
 couplers)

RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



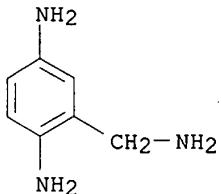
L26 ANSWER 18 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:747103 HCPLUS
 DN 135:308585
 TI 1,3-Dihydroxybenzene derivatives and compositions containing them as
 coloring agents for keratin fibers
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 45 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07D333-04
 ICS A61K007-13; C07D213-04; C07D239-26
 CC 62-4 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25, 27

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20108704	U1	20011011	DE 2001-20108704	20010525
	WO 2002096901	A2	20021205	WO 2002-EP850	20020128
	WO 2002096901	A3	20030313		
				W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG	

BR 2002005398	A	20030701	BR 2002-5398	20020128
PRAI DE 2001-10125453	A	20010525		
DE 2001-20108704	U	20010525		
WO 2002-EP850	W	20020128		
OS MARPAT 135:308585				
AB	An agent for coloring keratin fibers comprises a coupling agent combined with a developing agents. The invention comprises at least one 1,3-dihydroxybenzene deriv. having a mol. structure defined in the claims. Among the derivs. of the invention are 1,3-dihydroxy-4-(thiophen-2-yl)benzene and 1,3-dihydroxy-4-(5-nitrothiophen-2-yl)benzene. A developer that can be used is 1,4-diaminobenzene.			
ST	keratin hair dye dihydroxybenzene deriv			
IT	pH	(1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for keratin fibers)		
IT	Keratins	RL: RCT (Reactant); RACT (Reactant or reagent) (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for keratin fibers)		
IT	Hair preparations	(dyes; 1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for keratin fibers)		
IT	108-46-3D, 1,3-Dihydroxybenzene, derivs.	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses) (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring agents for keratin fibers)		
IT	83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 1H-Indole-2,3-dione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 99-98-9 101-54-2 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-Methylaminophenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxypyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-66-7 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7 6941-70-4 7218-02-2 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 22446-41-9 26011-57-4, 6-Amino-3,4-Dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-(3-Dimethylaminophenyl)urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,			

5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-methoxymethylphenol
 39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7,
 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-
 dichlorophenol 66566-48-1 **67199-87-5** 70643-19-5,
 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9
 71500-42-0 73793-80-3 75513-65-4 76045-64-2 78661-33-3
 79352-72-0, 4-Amino-2-aminomethylphenol 80592-80-9 80592-81-0
 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]
 anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1,
 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
 dimethoxypyridine 86817-42-7 90817-34-8 93841-24-8 94082-77-6
 97902-52-8 104333-08-6 104333-09-7, 4-Amino-2-hydroxymethylphenol
 104752-48-9 104752-50-3 104752-51-4 105293-89-8 109942-17-8,
 [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol
 110952-46-0 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 126335-43-1 128729-30-6 130582-53-5
 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9 139443-57-5,
 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
 155601-16-4 155601-17-5 157469-54-0 157469-55-1 159661-45-7
 168092-23-7 168202-61-7, 4-Amino-3-hydroxymethylphenol 207568-58-9
 207923-07-7 244104-61-8 246244-41-7 306959-12-6 307493-94-3
 329320-36-7 337906-36-2 359866-26-5 359866-36-7 365548-62-5
 365548-63-6 365548-64-7 365548-65-8 365548-66-9 365548-67-0
 365548-68-1 365548-73-8
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
 chemical process); RCT (Reactant); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 31963-61-8P 365548-74-9P
 RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
 or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 110-87-2, 3,4-Dihydro-2H-pyran 6626-15-9, 4-Bromo-1,3-dihydroxybenzene
 14221-01-3 24057-28-1 72287-26-4 73183-34-3 106120-04-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT 365548-75-0P 365548-76-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 IT **67199-87-5**
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or
 chemical process); RCT (Reactant); BIOL (Biological study); PROC
 (Process); RACT (Reactant or reagent); USES (Uses)
 (1,3-dihydroxybenzene derivs. and compns. contg. them as coloring
 agents for **keratin** fibers)
 RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:730682 HCAPLUS
 DN 135:293678
 TI Use of p-diaminobenzene derivatives and hair dyes containing
 said compounds
 IN Chassot, Laurent
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM C07C211-53
 ICS C07C215-68; C07C215-16; A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 41
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001072686	A1	20011004	WO 2001-EP1860	20010220
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	DE 10014855	A1	20011011	DE 2000-10014855	20000324
	DE 10014855	C2	20020516		
	BR 2001005310	A	20020219	BR 2001-5310	20010220
	EP 1183227	A1	20020306	EP 2001-919309	20010220
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2003145764	A1	20030807	US 2001-19861	20011109
PRAI	DE 2000-10014855	A	20000324		
	WO 2001-EP1860	W	20010220		
OS	MARPAT 135:293678				
AB	The invention relates to p-diaminobenzene derivs. or physiol. acceptable, water-sol. salts thereof and the use thereof as developer substances in oxidn. dying of keratin fibers.				
ST	diaminobenzene deriv hair dye				
IT	Dyes (developers; p-diaminobenzene derivs. and hair dyes contg. them)				
IT	Hair preparations				

(dyes, oxidative; p-diaminobenzene derivs. and hair dyes
contg. them)

IT Coupling agents

(p-diaminobenzene derivs. and hair dyes contg. them)

IT 95-70-5, 2,5-Diaminotoluene 106-50-3, 1,4-Diaminobenzene, biological studies 123-30-8, 4-Aminophenol 93841-24-8
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(developer; p-diaminobenzene derivs. and hair dyes contg. them)

IT 123-30-8D, 4-Aminophenol, derivs. 1004-74-6D, Tetraaminopyrimidine, derivs. 16461-98-6D, 1H-Pyrazole-3,4-diamine, derivs.
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(developers; p-diaminobenzene derivs. and hair dyes contg. them)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8 89-83-8 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3D, p-Diaminobenzene, derivs. 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Amino-phenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 1H-Indol-4-ol 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 6201-65-6, 2-Chloro-1,3-dihydroxybenzene 6265-21-0 6941-70-4 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1 22446-41-9 26011-57-4 26021-57-8 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71500-41-9 71500-42-0 76045-64-2 80592-80-9 80592-81-0 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4 110102-86-8 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine 115423-86-4 122455-85-0, 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7 180156-45-0 207923-07-7 359866-26-5 359866-36-7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(p-diaminobenzene derivs. and hair dyes contg. them)

IT 364343-16-8 364343-17-9 364343-18-0
364343-19-1 364343-20-4 364343-21-5
364343-22-6 364343-23-7 364343-24-8
364343-25-9 364343-26-0 364343-27-1
364343-28-2 364343-29-3 364343-30-6 364343-31-7

364343-32-8 364353-63-9
RL: BUU (Biological use, unclassified); PEP (Physical, engineering or

chemical process); BIOL (Biological study); PROC (Process); USES (Uses) (p-diaminobenzene derivs. and hair dyes contg. them)

IT 364343-16-8DP, derivs. 364343-34-0P 364343-35-1P
 364343-36-2P 364343-37-3P 364343-38-4P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (p-diaminobenzene derivs. and hair dyes contg. them)

IT 917-54-4, Methylolithium 2136-75-6 24424-99-5, Di-tert-butyldicarbonate 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6
 RL: RCT (Reactant); RACT (Reactant or reagent) (p-diaminobenzene derivs. and hair dyes contg. them)

IT 244104-65-2P 325953-36-4P 364343-33-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (p-diaminobenzene derivs. and hair dyes contg. them)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

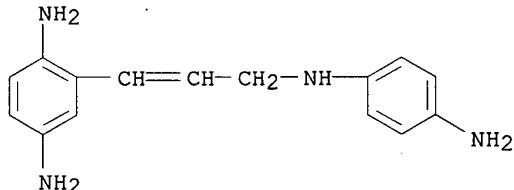
RE

(1) Henkel Kgaa; EP 0286896 A 1988 HCPLUS
 (2) Wella Ag; DE 19822041 A 1999 HCPLUS

IT 364343-16-8
 RL: BUU (Biological use, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process); USES (Uses) (p-diaminobenzene derivs. and hair dyes contg. them)

RN 364343-16-8 HCPLUS

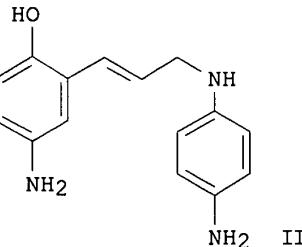
CN 1,4-Benzenediamine, 2-[3-[(4-aminophenyl)amino]-1-propenyl]- (9CI) (CA INDEX NAME)



L26 ANSWER 20 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:729681 HCPLUS
 DN 135:288573
 TI Preparation of aminophenol derivatives and their use in coloring agents
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 40 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C215-80
 ICS C07C217-08; D06P001-645; A61K007-13; C07D317-48; C07D295-04;
 C07D521-00; C07F007-10
 CC 25-10 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 41, 62
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20111038	U1	20011004	DE 2001-20111038	20010704

PRAI DE 2001-20111038
 OS MARPAT 135:288573
 GI



AB Para-aminophenol derivs. I [R1, R2 = H, C1-2-alkoxy, C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl, C2-4-aminoalkyl, C2-4-(dimethylamino)alkyl, C2-4-(acetylamino)alkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-(aminocarbonyl)alkyl, pyridylmethyl, furfuryl, thiethylmethyl, hydrogenated furfuryl, (un)substituted pyridyl, Ph, aminopyrazolyl; R1R2N = (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-6-alkyl] their physiol. compatible, water sol. salts are claimed. Thus, 4-amino-2-[3-[(4-aminophenyl)amino]propenyl]phenol hydrochloride (II.cndot.HCl) was prep'd. from 4-HOC6H4NHBoc (Boc = CO2CMe3) via ortho bromination, hydroxyl group protection with ClCH2OEt, debromination-formylation, Wittig reaction with Ph3P:CHCHO, and reductive amination with 4-H2NC6H4NHBoc. I were used in oxidative hair coloring formulations.

ST aminophenol deriv prep'n coloring agent

IT Phenols, preparation
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (amino; prep'n. of aminophenol derivs. and their use in coloring agents)

IT Cosmetics
 (coloring agents; prep'n. of aminophenol derivs. and their use in coloring agents)

IT Dyes
 (direct; prep'n. of aminophenol derivs. and their use in coloring agents)

IT Hair preparations
 (dyes, oxidative; prep'n. of aminophenol derivs. and their use in coloring agents)

IT Amines, preparation
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (phenolic; prep'n. of aminophenol derivs. and their use in coloring agents)

IT Coloring materials
 Stains, coloring materials
 (prep'n. of aminophenol derivs. and their use in coloring agents)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4,

2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline
95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5,
1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol
99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline
106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses
108-46-3, 1,3-Dihydroxybenzene, uses 137-19-9 141-86-6,
2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1,
4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3,
3,4-Methylenedioxypyhenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2,
1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 608-25-3,
1,3-Dihydroxy-2-methylbenzene 615-66-7, 2-Chloro-1,4-diaminobenzene
619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7 1630-11-1 1687-53-2,
5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3,
4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6,
4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7,
2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene
5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9 5862-80-6
6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6358-09-4,
2-Amino-6-chloro-4-nitrophenol 6393-01-7, 1,4-Diamino-2,5-
dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxypyhenol
7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1
14268-66-7, 1,3-Benzodioxol-5-amine 16867-03-1, 2-Amino-3-
hydroxypyridine 17672-22-9, 2-Amino-6-methylphenol 26011-57-4,
6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-
hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[3-(Dimethylamino)phenyl]urea
28020-38-4, 2,3-Diamino-6-methoxypyridine 28365-08-4 29539-03-5,
5,6-Dihydroxyindoline 29785-47-5, 4-Amino-2-(methoxymethyl)phenol
39489-79-7, 5-Amino-2,4-dichlorophenol 45514-38-3 53222-92-7,
3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 66566-48-1,
4-[(2-Methoxyethyl)amino]aniline 67199-87-5 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71077-37-7
71500-41-9 71500-42-0 73793-80-3 75513-65-4 76045-64-2
78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol 80592-80-9
80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 83763-48-8 83789-94-0 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1,
3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-
dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol
90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8,
1,4-Diamino-2-(2-hydroxyethyl)benzene 94082-77-6 97902-52-8,
1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7,
4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
Hydroxypropyl)amino]aniline 104752-50-3 104752-51-4 105293-89-8
109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110102-86-8,
5-Amino-4-chloro-2-methylphenol 110952-46-0, 4-Amino-2-[(2-
hydroxyethyl)amino]methylphenol 111451-24-2, 2,6-Diamino-3,5-
dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxypyhenol
122455-85-0, 5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1
128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol
130582-53-5 131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol
dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol
139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3,
2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,

2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
 149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole
 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0,
 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1
 168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9
 207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-
 benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3
 329320-36-7 337906-36-2 364328-00-7 364328-01-8 364328-20-1
 364328-21-2
 RL: NUU (Other use, unclassified); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
 RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or
 reagent); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)

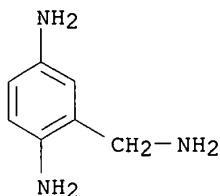
IT 615-50-9P 74918-21-1P, 1,3-Bis(2,4-diaminophenoxy)propane
 tetrahydrochloride 93841-25-9P 155601-30-2P 364598-57-2P
 364598-58-3P 364598-59-4P 364598-60-7P 364598-61-8P 364598-62-9P
 364598-63-0P 364598-64-1P 364598-65-2P 364598-66-3P 364598-67-4P
 364598-68-5P 364598-69-6P 364598-70-9P 364598-71-0P 364598-72-1P
 364598-73-2P 364598-74-3P 364598-75-4P 364598-76-5P 364598-77-6P
 364598-78-7P 364598-79-8P 364598-80-1P 364598-81-2P 364598-82-3P
 364598-83-4P 364598-84-5P 364598-86-7P 364598-87-8P 364598-88-9P
 364598-89-0P 364598-90-3P 364598-91-4P 364598-92-5P 364598-93-6P
 364598-94-7P 364598-95-8P 364598-96-9P
 RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP
 (Preparation); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)

IT 63-74-1, 4-Aminobenzenesulfonamide 75-04-7, Ethylamine, reactions
 75-31-0, Isopropylamine, reactions 99-57-0, 2-Amino-4-nitrophenol
 107-11-9, Allylamine 107-15-3, Ethylenediamine, reactions 109-01-3
 109-83-1, (2-Hydroxyethyl)methylamine 109-85-3, (2-Methoxyethyl)amine
 110-91-8, Morpholine, reactions 111-42-2, Bis(2-hydroxyethyl)amine,
 reactions 123-75-1, Pyrrolidine, reactions 498-63-5, Prolinol
 504-29-0, 2-Aminopyridine 617-89-0, Furfurylamine 765-30-0,
 Cyclopropylamine 1001-53-2, N-Acetylenediamine 2136-75-6,
 (Formylmethylene)triphenylphosphorane 4795-29-3, Tetrahydrofurfurylamine
 5382-16-1, 4-Hydroxypiperidine 6638-79-5, N,O-Dimethylhydroxylamine
 hydrochloride 6859-99-0, 3-Hydroxypiperidine 25808-30-4,
 (Methylamino)acetonitrile hydrochloride 35303-76-5, 4-(2-
 Aminoethyl)benzenesulfonamide 40499-83-0, 3-Hydroxypyroolidine
 54840-15-2 71026-66-9 325953-40-0 325953-41-1 325953-45-5
 325953-46-6 364598-97-0 364598-98-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of aminophenol derivs. and their use in coloring agents)

IT 364598-99-2P 364599-00-8P 364599-01-9P 364599-02-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of aminophenol derivs. and their use in coloring agents)

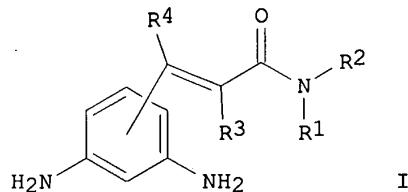
IT 67199-87-5
 RL: NUU (Other use, unclassified); USES (Uses)
 (oxidative hair coloring component; prepn. of aminophenol
 derivs. and their use in coloring agents)

RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:729680 HCAPLUS
 DN 135:288588
 TI (m-Diaminophenyl)acrylamide derivatives and hair coloring agents containing these compounds
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 48 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C237-20
 ICS A61K007-13; C07D317-48; C07D295-04
 CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 62

FAN.CNT 1		KIND	DATE	APPLICATION NO.	DATE
	PATENT NO.				
PI	DE 20111037	U1	20011004	DE 2001-20111037	20010704
PRAI	DE 2001-20111037		20010704		
OS	MARPAT 135:288588				
GI					



AB (m-Diaminophenyl)acrylamide derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, unsatd. C3-6 alkyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, a C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, a C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 carboxyalkyl, C2-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, hydrogenated furfuryl, substituted pyridyl, (un)substituted Et, (un)substituted Ph, substituted aminopyrazolyl; or R1 and R2 together with the N atom form a ring; R3, R4 = H, C1-4 alkyl; preferably, R3 = R4 = H, or R1, R2 and R4 = H, R2 = aminophenyl, hydroxyphenyl] or their physiol. compatible, water-sol. salts, useful in oxidative hair dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier,

are claimed. Preferred compds. I are 3-(2,4-diaminophenyl)-1-morpholinopropenone, 3-(2,4-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, 3-(3,5-diaminophenyl)-N-(4-hydroxyphenyl)acrylamide, N-(3-aminophenyl)-3-(3,5-diaminophenyl)acrylamide and N-(4-aminophenyl)-3-(3,5-diaminophenyl)acrylamide, or their physiol. acceptable salts (prepsn. given). In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to **hair**; e.g., 0.10 g 3-(2,4-diaminophenyl)-1-morpholinopropenone HCl salt, 0.30 g 1,4-diaminobenzene, 0.05 g 1,3-diamino-4-(2-hydroxyethyl)aminoanisole sulfate, and 0.05 g 3-aminophenol (formulation given) afforded blond **hair**.

ST acrylamide diaminophenyl prepns **hair** dye component; coupling substance oxidative **hair** dye acrylamide

IT **Hair** preparations
(dyes, oxidative; (diaminophenyl)acrylamide derivs. in)

IT Cosmetics
Hair
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT **Keratins**
RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT Amides, preparation
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of (diaminophenyl)acrylamide derivs. and their use as coupling agents in oxidative **hair** dyes contg. developer-coupler substance combinations)

IT 2605-67-6, Methoxycarbonylmethylenetriphenylphosphorane
RL: RCT (Reactant); RACT (Reactant or reagent)
(Wittig olefination by, of formylbenzene deriv.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4, 2-[(3-Hydroxyphenyl)amino]acetamide 7469-77-4, 2-Methyl-1-naphthol 14268-66-7, 3,4-Methylenedioxyaniline 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4,

2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol
 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol
 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene
 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene
 71500-41-9 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1
 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2,
 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene
 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol
 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol
 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7,
 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6,
 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid
 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3,
 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol
 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine
 94082-77-6, 2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene
 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene
 104752-51-4 110102-86-8, 5-Amino-4-chloro-2-methylphenol 111451-24-2
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol
 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene
 141922-20-5, 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol
 146658-65-3, 5-[(3-Hydroxypropyl)amino]-2-methylphenol 149330-25-6
 164919-03-3 168092-23-7, Bis(2,4-diaminophenoxy)methane 207923-07-7
 244028-58-8, 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene
 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3,
 1,3-Diamino-4-(3-hydroxypropoxy)benzene 364343-80-6
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(addnl. coupling substance component in oxidative hair dye
 based on developer-coupling substance combination contg.
 (diaminophenyl)acrylamide derivs.)

IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 107-11-9,
 Allylamine 107-15-3, Ethylenediamine, reactions 110-91-8, Morpholine,
 reactions 121-88-0, 2-Amino-5-nitrophenol 123-75-1, Pyrrolidine,
 reactions 498-63-5, Prolinol 616-30-8; 3-Amino-1,2-propanediol
 1001-53-2, N-Acetylenelediamine 5382-16-1, 4-Hydroxypiperidine
 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5, N,O-Dimethylhydroxylamine
 hydrochloride 6859-99-0, 3-Hydroxypiperidine 33786-90-2,
 5-Bromo-1,3-diaminobenzene 40499-83-0, 3-Hydroxypyrrrolidine 68621-88-5
 71026-66-9, tert-Butyl (4-aminophenyl)carbamate 325953-40-0
 325953-41-1 325953-45-5 325953-46-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs.)

IT 2835-95-2, 5-Amino-2-methylphenol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs. and use
 as addnl. coupling substance component in oxidative hair dye
 based on developer-coupler combination)

IT 123-30-8, 4-Aminophenol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs. and use

as developer substance component in oxidative hair dyes)

IT 99-98-9, 4-(Dimethylamino)aniline
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs., and use as developer substance component in oxidative hair dye)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone 1630-11-1 2359-52-6 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5862-80-6 6369-59-1, 2,5-Diaminotoluene sulfate 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2 7575-35-1 17672-22-9, 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-(hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0, 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1, 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5, 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1, 1-[(4-Chlorophenyl)methyl]-4,5-diamino-1H-pyrazole 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9, 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8, 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2, 1,4-Diamino-2-(methoxymethyl)benzene 364343-79-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (developer substance component in oxidative hair dye based on developer-coupling substance combination)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (directly absorbable dye component in oxidative hair dye prepn.)

IT 364038-89-1P 364343-82-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and Wittig olefination of)

IT 364038-88-0P 364343-81-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and formylation of)

IT 6264-69-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and protection of amino groups in, with BOC groups)

IT 364343-83-9P 364343-85-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and sapon. of)

IT 364343-44-2P 364343-45-3P 364343-46-4P 364343-47-5P 364343-48-6P
364343-49-7P 364343-50-0P 364343-51-1P 364343-52-2P 364343-53-3P
364343-54-4P 364343-55-5P 364343-56-6P 364343-57-7P 364343-58-8P
364343-59-9P 364343-60-2P 364343-61-3P 364343-62-4P 364343-63-5P
364343-64-6P 364343-65-7P 364343-66-8P 364343-67-9P 364343-68-0P
364343-69-1P 364343-70-4P 364343-71-5P 364343-72-6P 364343-73-7P
364343-74-8P 364343-75-9P 364343-76-0P 364343-77-1P 364343-78-2P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative hair dye based on developer-coupling substance combination)

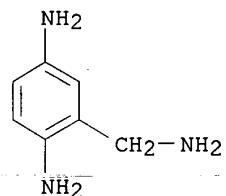
IT 364343-39-5P 364343-40-8P 364343-41-9P 364343-42-0P 364343-43-1P
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. for use as coupling substance component in oxidative hair dye based on developer-coupling substance combination
contg. (diaminophenyl)acrylamide derivs.)

IT 364343-84-0P 364343-86-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., deprotection and amidation of)

IT 584-48-5, 1-Bromo-2,4-dinitrobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of)

IT 67199-87-5, 1,4-Diamino-2-(aminomethyl)benzene
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(developer substance component in oxidative hair dye based on developer-coupling substance combination)

RN 67199-87-5 HCPLUS
CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 22 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
AN 2001:729678 HCPLUS
DN 135:288587

KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

TI Aminomethyl-m-dihydroxybenzene derivatives and coloring agents for
keratin fibers containing these compounds

PA Wella AG, Germany

SO Ger. Gebrauchsmusterschrift, 35 pp.

CODEN: GGXXFR

DT Patent

LA German

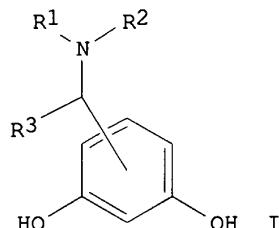
IC ICM C07C215-46

ICS A61K007-13

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20110356	U1	20011004	DE 2001-20110356	20010622
PRAI	DE 2001-20110356			20010622	
OS	MARPAT 135:288587				
GI					



AB Aminomethyl-m-dihydroxybenzene derivs. I [R1, R2 = H, C1-2 alkoxy, C1-6 alkyl, C3-6 alkenyl, C2-4 hydroxyalkyl, C3-4 dihydroxyalkyl, C2-4 aminoalkyl, C2-4 dimethylaminoalkyl, C2-4 acetylaminoalkyl, C2-4 methoxyalkyl, C2-4 ethoxyalkyl, C1-4 cyanoalkyl, C1-4 aminocarbonylalkyl, pyridylmethyl, furfuryl, thiethylmethyl, substituted pyridyl, (un)substituted phenylmethyl or -Et, or R1 and R2 together with the N atom form a ring, including (un)substituted piperidino, morpholino, piperazino, pyrrolidino; R3 = H, C1-4 alkyl; preferably, R3 = H and/or one of R1 or R2 = C2-4 hydroxyalkyl, 3,4-methylenedioxyphenyl, Ph] or their physiol. compatible, water-sol. salts, useful as couplers in oxidative hair dyes based on a developer substance-coupling substance combination in one suitable cosmetic carrier, are claimed. In examples given, compds. I are formulated with one or more known developer substances and one or more known addnl. coupling substances to give various shades of color when applied to hair; e.g., a prepn. contg. 0.20 g 1,3-dihydroxy-(4-phenylaminomethyl)benzene (prepn. given) 0.15 g 1,4-benzenediamine, 0.30 g 3-methyl-4-aminophenol and 0.30 1-naphthol (formulation given) afforded red-brown hair.

ST dihydroxybenzene deriv prepn hair dye component; coupling substance oxidative hair dye dihydroxybenzene

IT Hair preparations

(dyes, oxidative; dihydroxybenzene derivs. as coupling substances in)

IT Amination

(of dihydroxybenzaldehyde)

IT Cosmetics

Hair

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

IT **Keratins**

RL: BPR (Biological process); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); PROC (Process); RACT (Reactant or reagent)

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

IT **Hydroquinones**

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of dihydroxybenzene derivs. and their use as coupling agents in oxidative hair dyes contg. developer-coupler substance combinations)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,5-Dichloro-2,4-dihydroxybenzene 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2, 3-[(2-Hydroxyethyl)amino]phenol 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2 3131-52-0, 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-1,4(2H)-benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)-benzoxazine 26455-21-0, N-[(3-Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichlorophenol 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3, 3-Amino-2,4-dichlorophenol 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71005-35-1 71077-37-7, 1,3-Diamino-4-(2-methoxyethoxy)benzene 71500-41-9, 4-Amino-2-[bis(2-hydroxyethyl)amino]-1-ethoxybenzene 71500-42-0, 3-[Bis(2-hydroxyethyl)amino]aniline 74918-21-1 75513-65-4, 1,3-Diamino-4-(2,3-dihydroxypropoxy)benzene 76045-64-2, 3-[(2-Aminoethyl)amino]aniline 78661-33-3, 2-Amino-1-(2-hydroxyethoxy)-4-methylaminobenzene 80592-80-9, 3-[(2,3-Dihydroxypropyl)amino]-2-methylphenol 80592-81-0, 3-[(2-Hydroxyethyl)amino]-2-methylphenol 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7, 2,4-Diaminophenoxyacetic acid 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7, 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 94082-77-6, 2,4-Diamino-1,5-bis(2-hydroxyethoxy)benzene 94158-14-2 104752-50-3, 1-(2-Aminoethoxy)-2,4-diaminobenzene 104752-51-4, 1,2-Dichloro-3,5-dihydroxy-4-methylbenzene 110102-86-8, 5-Amino-4-chloro-2-methylphenol

111451-24-2 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-
 methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
 methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 2,4-Diamino-1-ethoxy-5-methylbenzene 141614-05-3, 2,4-Diamino-1-(2-
 hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
 methylbenzene 142082-56-2, 3-[(2-Methoxyethyl)amino]phenol 146658-65-3
 149330-25-6, 2,6-Bis[(2-hydroxyethyl)amino]toluene 164919-03-3
 168092-23-7 207923-07-7, 5-Amino-2-ethylphenol 244028-58-8,
 2,4-Bis[(2-hydroxyethyl)amino]-1,5-dimethoxybenzene 244028-59-9,
 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 364366-19-8
 364366-20-1
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (addnl. coupling substance component in oxidative hair dye
 based on developer-coupling substance combination contg.
 dihydroxybenzene derivs.)

IT 123-30-8, 4-Aminophenol
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)
 (amidation by, of protected (diaminophenyl)acrylic acid derivs. and use
 as developer substance component in oxidative hair dyes)

IT 95-01-2, 2,4-Dihydroxybenzaldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination and subsequent redn. of)

IT 62-53-3, Aniline, reactions 107-11-9, Allylamine 110-91-8, Morpholine,
 reactions 111-42-2, Bis(2-hydroxyethyl)amine, reactions 123-75-1,
 Pyrrolidine, reactions 498-63-5, 2-(Hydroxymethyl)pyrrolidine
 1117-97-1, N,O-Dimethylhydroxylamine 6315-89-5, 3,4-Dimethoxyaniline
 6859-99-0, 3-Hydroxypiperidine 71026-66-9, tert-Butyl
 4-aminophenylcarbamate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination by, of dihydroxybenzaldehyde and subsequent redn.)

IT 14268-66-7, 3,4-Methylenedioxyaniline
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)
 (amination of dihydroxybenzaldehyde by and use as addnl. coupling
 substance component in oxidative hair dyes)

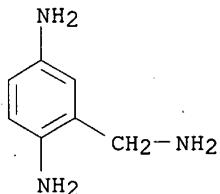
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 364366-02-9 364366-04-1 364366-05-2 364366-06-3 364366-08-5
 364367-06-6
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (coupling substance component in oxidative hair dye based on
 developer-coupling substance combination contg. dihydroxybenzene
 derivs.)

IT 2835-98-5, 2-Amino-5-methylphenol
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (developer and addnl. coupling substance components in oxidative
 hair dyes)

IT 89-57-6, 5-Aminosalicylic acid 92-65-9, 4-[N-Ethyl-N-(2-

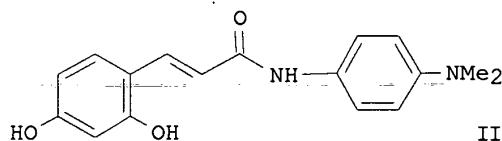
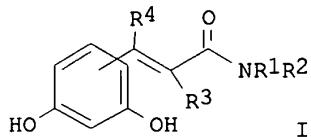
hydroxyethyl)amino]aniline 93-05-0, 4-(Diethylamino)aniline 95-55-6,
 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 101-54-2,
 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, biological studies
 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol
 399-96-2, 4-Amino-2-fluorophenol 533-73-3, 1,2,4-Trihydroxybenzene
 615-66-7, 1,4-Diamino-2-chlorobenzene 1004-74-6, 2,4,5,6-
 Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)pyrimidinone
 1630-11-1 2359-52-6, 4-[Bis(2-hydroxyethyl)amino]-2-methylaniline
 2835-96-3, 4-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol
 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-
 dimethylbenzene 5862-80-6, 4-[(2,3-Dihydroxypropyl)amino]aniline
 6369-59-1 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 7218-02-2
 7575-35-1, 4-[Bis(2-hydroxyethyl)amino]aniline 17672-22-9,
 2-Amino-6-methylphenol 29785-47-5, 4-Amino-2-(methoxymethyl)phenol
 45514-38-3, 4,5-Diamino-1-methyl-1H-pyrazole 58262-44-5 66566-48-1,
 4-[(2-Methoxyethyl)amino]aniline **67199-87-5**,
 1,4-Diamino-2-(aminomethyl)benzene 73793-80-3, 1,4-Diamino-2-
 (hydroxymethyl)benzene 79352-72-0, 4-Amino-2-(aminomethyl)phenol
 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene 97902-52-8,
 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7,
 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-
 Hydroxypropyl)amino]aniline 105293-89-8, 4-(Dipropylamino)aniline
 109942-17-8, [1,1'-Biphenyl]-2,5-diamine 110952-46-0,
 4-Amino-2-[(2-hydroxyethyl)amino]methylphenol 126335-43-1,
 1,4-Diamino-2-(2-hydroxyethoxy)benzene 128729-30-6, 1,3-Bis[(4-
 aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5,
 1,4-Bis[(4-aminophenyl)amino]butane 135043-64-0 155601-16-4,
 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole 155601-17-5,
 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 157469-54-0,
 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole 157469-55-1
 159621-77-9 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane
 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9,
 2-(2-(Acetylamino)ethoxy)-1,4-diaminobenzene 244104-61-8,
 1,4-Diamino-2-(2-thienyl)benzene 246244-41-7, 1,4-Diamino-2-(3-
 thienyl)benzene 306959-12-6, 1,4-Diamino-2-(3-pyridyl)benzene
 329320-36-7, 1,4-Diamino-2-(1-hydroxyethyl)benzene 337906-36-2,
 1,4-Diamino-2-methoxymethylbenzene 364343-79-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (developer substance component in oxidative hair dye based on
 developer-coupling substance combination)
 IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 131657-78-8,
 2-Chloro-6-(ethylamino)-4-nitrophenol
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (directly absorbable dye component in oxidative hair dye
 prepn.)
 IT 364366-09-6P 364366-11-0P 364366-12-1P 364366-13-2P 364366-14-3P
 364366-15-4P 364366-16-5P 364366-17-6P 364366-18-7P 364366-21-2P
 364366-22-3P 364366-23-4P 364366-24-5P 364366-25-6P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, as coupling substance component in oxidative hair
 dye based on developer-coupling substance combination contg.
 dihydroxybenzene derivs.)
 IT **67199-87-5**, 1,4-Diamino-2-(aminomethyl)benzene
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(developer substance component in oxidative hair dye based on developer-coupling substance combination)
 RN 67199-87-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 23 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:729677 HCPLUS
 DN 135:288586
 TI Preparation of (dihydroxyphenyl)acrylamide derivatives and compositions containing coloring agents
 PA Wella AG, Germany
 SO Ger. Gebrauchsmusterschrift, 52 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C235-32
 ICS A61K007-13; C07D295-04; C07D227-00
 CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 41
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20110355	U1	20011004	DE 2001-20110355	20010622
PRAI DE 2001-20110355		20010622		
OS MARPAT 135:288586				
GI				



AB (m-dihydroxyphenyl)acrylamide derivs. I [R1, R2 = H, C1-2-alkoxy, C1-6-alkyl, C3-6-alkenyl, C2-4-hydroxyalkyl, C3-4-dihydroxyalkyl,

C2-4-aminoalkyl, C2-4-dimethylaminoalkyl, C2-4-acetylaminoalkyl, C2-4-methoxyalkyl, C2-4-ethoxyalkyl, C1-4-cyanoalkyl, C1-4-carboxyalkyl, C1-4-aminocarbonylalkyl, pyridylmethyl, furfuryl, hydrogenated furfuryl, substituted pyridyl, CHR5CHR6R7, (un)substituted Ph, aminopyrazolyl; R1R2N = (un)substituted piperidine, morpholine, the formulpiperazine, pyrrolidine; R3, R4 = H, C1-4-alkyl; R5 = H, CO2H, CONH2; R6, R7 = H, OH, CONH2, CH2SMe, PH, hydroxyphenyl, morpholinyl, oxopyrrolidinyl, imidazolyl] or its physiol. compatible, water-sol. salts are claimed. Thus, 3-(2,4-dihydroxyphenyl)-N-[4-(dimethylamino)phenyl]acrylamide hydrochloride (II.cndot.HCl), was prep'd. from 2,4-(HO)2C6H4CHO, via hydroxyl group protection, Wittig with (MeO2C)CH:PPh3, sapon., amidation with 4-(Me2N)C6H4NH2 and deprotection. I were used in the prepn. of hair dye formulations and their color tints noted.

ST dihydroxyphenylacrylamide deriv prepn coloring agent

IT Hair preparations
(dyes, oxidative; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT Amides, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(phenylacrylic; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT Coloring materials
Dyes
Stains, coloring materials
(prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-57-6, 5-Aminosalicylic acid 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-(Diethylamino)phenol 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0, 4-(Diethylamino)aniline 95-55-6, 2-Aminophenol 95-70-5, 1,4-Diamino-2-methylbenzene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-(Dimethylamino)phenol 99-98-9, 4-(Dimethylamino)aniline 101-54-2, 4-(Phenylamino)aniline 106-50-3, 1,4-Diaminobenzene, uses 108-45-2, 1,3-Diaminobenzene, uses 108-46-3, 1,3-Dihydroxybenzene, uses 123-30-8, 4-Aminophenol 137-19-9 141-86-6, 2,6-Diaminopyridine 150-75-4, 4-(Methylamino)phenol 399-95-1, 4-Amino-3-fluorophenol 399-96-2, 4-Amino-2-fluorophenol 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, 1,2,4-Trihydroxybenzene 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9 615-66-7, 2-Chloro-1,4-diaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 2,5,6-Triamino-4(1H)-pyrimidinone 1630-11-1 1687-53-2, 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2359-52-6 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2835-95-2, 5-Amino-2-methylphenol 2835-96-3, 4-Amino-2-methylphenol 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 3131-52-0, 5,6-Dihydroxyindole 4318-76-7, 2,5-Diaminopyridine 5306-96-7, 1,4-Diamino-2,3-dimethylbenzene 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9, 2-Methyl-1-naphthyl acetate 5862-80-6 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline 6393-01-7, 1,4-Diamino-2,5-dimethylbenzene 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7218-02-2 7228-00-4 7469-77-4, 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Amino-3-hydroxypyridine

17672-22-9, 2-Amino-6-methylphenol 26011-57-4 26021-57-8 26455-21-0,
 N-[3-(Dimethylamino)phenyl]urea 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29785-47-5,
 4-Amino-2-(methoxymethyl)phenol 39489-79-7, 5-Amino-2,4-dichlorophenol
 45514-38-3 53222-92-7, 3-Amino-2-methylphenol 54381-16-7 55302-96-0,
 5-[(2-Hydroxyethyl)amino]-2-methylphenol 61693-42-3,
 3-Amino-2,4-dichlorophenol 66566-48-1, 4-[(2-Methoxyethyl)amino]aniline
67199-87-5 70643-19-5, 2,4-Diamino-1-(2-hydroxyethoxy)benzene
 70643-20-8 71077-37-7 71500-41-9 71500-42-0 73793-80-3
 74918-21-1, 1,3-Bis (2,4-diaminophenoxy)propane tetrahydrochloride
 76045-64-2 78661-33-3 79352-72-0, 4-Amino-2-(aminomethyl)phenol
 80592-80-9 80592-81-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-hydroxyethyl)amino]anisole 83763-48-8 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 86817-42-7,
 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-(methylamino)pyridine 93841-24-8, 1,4-Diamino-2-(2-hydroxyethyl)benzene
 93841-25-9 94082-77-6 94158-14-2 97902-52-8, 1,4-Diamino-2-(1-methylethyl)benzene 104333-08-6 104333-09-7, 4-Amino-2-(hydroxymethyl)phenol 104752-48-9, 4-[(3-Hydroxypropyl)amino]aniline
 104752-50-3 104752-51-4 105293-89-8 109942-17-8,
 [1,1'-Biphenyl]-2,5-diamine 110102-86-8, 5-Amino-4-chloro-2-methylphenol
 110952-46-0 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 122481-67-8 126335-43-1 128729-30-6,
 1,3-Bis[(4-aminophenyl)(2-hydroxyethyl)amino]-2-propanol 130582-53-5
 131657-78-8 135043-64-0, 4-Amino-2-(aminomethyl)phenol dihydrochloride
 137290-78-9, 5-Amino-4-methoxy-2-methylphenol 137290-86-9,
 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-methylphenol 139443-57-5,
 5-Amino-4-ethoxy-2-methylphenol 141614-04-2 141614-05-3,
 2,4-Diamino-1-(2-hydroxyethoxy)-5-methylbenzene 141922-20-5,
 2,4-Diamino-1-fluoro-5-methylbenzene 142082-56-2 146658-65-3
 149330-25-6 155601-16-4, 4,5-Diamino-1-(1-methylethyl)-1H-pyrazole
 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)-1H-pyrazole 155601-30-2
 157469-54-0, 4,5-Diamino-1-[(4-methylphenyl)methyl]-1H-pyrazole
 157469-55-1 159661-45-7, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane
 168092-23-7 168202-61-7, 4-Amino-3-(hydroxymethyl)phenol 207568-58-9
 207923-07-7 217311-43-8 244028-59-9, 5-[(2-Hydroxyethyl)amino]-1,3-benzodioxole 244104-61-8 246244-41-7 306959-12-6 307493-94-3
 329320-36-7 337906-36-2 364327-98-0 364328-00-7 364328-01-8
 364328-08-5

RL: NUU (Other use, unclassified); USES (Uses)

(oxidative hair dye component; prepns. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT	111526-93-3P	128327-79-7P	364326-43-2P	364326-44-3P	364326-45-4P
	364326-46-5P	364326-47-6P	364326-48-7P	364326-49-8P	364326-50-1P
	364326-51-2P	364326-52-3P	364326-53-4P	364326-54-5P	364326-55-6P
	364326-56-7P	364326-57-8P	364326-58-9P	364326-59-0P	364326-60-3P
	364326-61-4P	364326-62-5P	364326-63-6P	364326-64-7P	364326-66-9P
	364326-67-0P	364326-68-1P	364326-69-2P	364326-70-5P	364326-71-6P
	364326-72-7P	364326-73-8P	364326-74-9P	364326-75-0P	364326-76-1P
	364326-77-2P	364326-78-3P	364326-79-4P	364326-80-7P	364326-81-8P
	364326-82-9P	364326-83-0P	364326-84-1P	364326-85-2P	364326-86-3P
	364326-87-4P	364326-88-5P	364326-89-6P	364326-90-9P	364326-91-0P
	364326-92-1P	364326-93-2P	364326-94-3P	364326-95-4P	364326-96-5P
	364326-98-7P	364326-99-8P	364327-00-4P	364327-01-5P	364327-02-6P
	364327-03-7P	364327-04-8P	364327-05-9P	364327-06-0P	364327-07-1P
	364327-08-2P	364327-09-3P	364327-10-6P	364327-11-7P	364327-12-8P

364327-13-9P	364327-14-0P	364327-15-1P	364327-16-2P	364327-17-3P
364327-18-4P	364327-19-5P	364327-20-8P	364327-21-9P	364327-22-0P
364327-23-1P	364327-24-2P	364327-25-3P	364327-26-4P	364327-27-5P
364327-29-7P	364327-30-0P	364327-31-1P	364327-32-2P	364327-33-3P
364327-34-4P	364327-35-5P	364327-36-6P	364327-37-7P	364327-38-8P
364327-39-9P	364327-40-2P	364327-41-3P	364327-42-4P	364327-43-5P
364327-44-6P	364327-45-7P	364327-46-8P	364327-47-9P	364327-48-0P
364327-49-1P	364327-50-4P	364327-51-5P	364327-52-6P	364327-53-7P
364327-54-8P	364327-55-9P	364327-56-0P	364327-57-1P	364327-58-2P
364327-59-3P	364327-61-7P	364327-62-8P	364327-63-9P	364327-64-0P
364327-65-1P	364327-66-2P	364327-67-3P	364327-68-4P	364327-69-5P
364327-70-8P	364327-71-9P	364327-72-0P	364327-73-1P	364327-74-2P
364327-75-3P	364327-76-4P	364327-77-5P	364327-78-6P	364327-79-7P
364327-80-0P	364327-81-1P	364327-82-2P	364327-83-3P	364327-84-4P
364327-85-5P	364327-86-6P	364327-87-7P	364327-89-9P	364327-90-2P
364327-91-3P	364327-92-4P	364327-93-5P	364327-94-6P	364327-95-7P
364328-09-6P	364328-10-9P	364328-11-0P	364328-12-1P	364328-13-2P
364328-14-3P	364328-15-4P	364328-16-5P	364328-17-6P	364328-18-7P
364328-19-8P				

RL: NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (oxidative hair dye component; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 364328-20-1 364328-21-2

RL: NUU (Other use, unclassified); USES (Uses)
 (prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 95-01-2, 2,4-Dihydroxybenzaldehyde 99-57-0, 2-Hydroxy-5-nitroaniline 107-11-9, Allylamine 110-91-8, Morpholine, reactions 123-75-1, Pyrrolidine, reactions 141-43-5, (2-Hydroxyethyl)amine, reactions 498-63-5, 2-(Hydroxymethyl)pyrrolidine 616-30-8, 3-Amino-1,2-propanediol 1001-53-2, N-Acetylethylenediamine 2605-67-6, [(Methoxycarbonyl)methylene]triphenyl[phosphorane 5382-16-1, 4-Hydroxypiperidine 6315-89-5, 3,4-Dimethoxyaniline 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 6859-99-0, 3-Hydroxypiperidine 25739-59-7 25808-30-4, (Methylamino)acetonitrile hydrochloride 26153-38-8, 3,5-Dihydroxybenzaldehyde 40499-83-0, 3-Hydroxypyrrrolidine 71026-66-9

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 128837-29-6P 268233-10-9P, 3,5-Bis(ethoxymethoxy)benzaldehyde 364328-02-9P 364328-03-0P 364328-04-1P 364328-05-2P

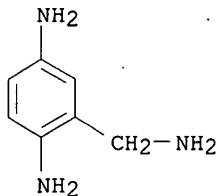
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

IT 67199-87-5

RL: NUU (Other use, unclassified); USES (Uses)
 (oxidative hair dye component; prepn. of (dihydroxyphenyl)acrylamide derivs. and compns. contg. coloring agents)

RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:672048 HCAPLUS
 DN 135:246996
 TI Preparation of 2,5-Diamino-benzaldehyde-derivates and their usage in hair dyes
 PA Wella A.-G., Germany
 SO Ger. Gebrauchsmusterschrift, 38 pp.
 CODEN: GGXXFR
 DT Patent
 LA German
 IC ICM C07C251-80
 ICS A61K007-13; C07C281-08; C07C337-04; C07C317-00; C07C327-28;
 C07C255-00
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 24
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 20108608	U1	20010913	DE 2001-20108608	20010523
PRAI DE 2001-20108608		20010523		
OS MARPAT 135:246996				

AB The invention concerns the synthesis of 2,5-Diamino-benzaldehyde-derivs. and their usage in hair dye compns. as developers along with coupling agents and optionally direct dyes. Thus a hair dye contained (g): 1,4-diamino-2-(piperidine-1-yl-iminomethyl)-benzene 0.30; 3-methyl-4-aminophenol 0.30; 1-naphthol 0.30; 1,3-dihydroxy benzene 0.18; potassium oleate 10.0; ammonia (22% soln.) 10.0; ethanol 10; ascorbic acid 0.3; water to 100. Upon usage, 30 g of the compn. were mixed with 30 g 6% hydrogen peroxide soln.; after 30 min the dye was rinsed, the resulting color was reddish brown.

ST Diamino benzaldehyde derivs developer oxidative hair dye
 IT Dyes
 (direct; prep. of 2,5-diamino-benzaldehyde-derivates and usage in hair dyes)
 IT Hair preparations
 (dyes, oxidative; prep. of 2,5-diamino-benzaldehyde-derivates and usage in hair dyes)
 IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylamino-phenol 92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 1-Chloro-2,4-dihydroxybenzene 99-07-0, 3-Dimethylaminophenol 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9, 1,3-Benzenediol, 4,6-dichloro 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene

619-05-6, 3,4-Diamino-benzoic acid 770-25-2 1687-53-2,
 5-Amino-2-methoxyphenol 1953-54-4, 5-Hydroxyindole 2380-84-9,
 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole
 2835-95-2, 5-Amino-2-methylphenol 3131-52-0, 5,6-Dihydroxyindole
 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene 5697-02-9,
 1-Naphthalenol, 2-methyl-, acetate 6201-65-6, 2-Chloro-1,3-
 dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4
 7469-77-4, 2-Methyl-1-naphthol 7722-84-1, Hydrogen peroxide, biological
 studies 14268-66-7, 3,4-Methylenedioxylaniline 16867-03-1,
 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-
 1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine
 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,
 5,6-Dihydroxyindoline 39489-79-7, 5-Amino-2,4-dichloro-phenol
 53222-92-7, 3-Amino-2-methylphenol 55302-96-0, 5-[(2-Hydroxyethyl)amino]-
 2-methylphenol 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5,
 2,4-Diamino-1-(2-hydroxyethoxy)benzene 71077-37-7 71500-41-9
 71500-42-0 75513-65-4 76045-64-2 78661-33-3 80592-80-9
 80592-81-0 81892-72-0 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
 84540-48-7 84540-50-1, 3-Amino-2-chloro-6-methylphenol 86817-42-7,
 2-(4-Amino-2-hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 94082-77-6 104752-50-3 104752-51-4,
 1,3-Benzenediol, 4,5-dichloro-2-methyl 110102-86-8, 5-Amino-4-chloro-2-
 methylphenol 111451-24-2, 2,6-Diamino-3,5-dimethoxypyridine
 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 122455-85-0,
 5-Amino-4-fluoro-2-methylphenol 137290-78-9, 5-Amino-4-methoxy-2-
 methylphenol 137290-86-9, 5-[(2-Hydroxyethyl)amino]-4-methoxy-2-
 methylphenol 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-
 hydroxyethoxy)-5-methylbenzene 142082-56-2 146658-65-3 168092-23-7
 207923-07-7, Phenol, 5-amino-2-ethyl- 244028-59-9, 5-[(2-
 Hydroxyethyl)amino]-1,3-benzodioxole 307493-94-3 359866-26-5
 359866-36-7

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

IT **359866-18-5P**

RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
 or reagent); USES (Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

IT **359865-88-6P 359865-89-7P 359865-90-0P**

359865-91-1P 359865-92-2P 359865-93-3P

359865-94-4P 359865-95-5P 359865-96-6P

359865-97-7P 359865-98-8P 359865-99-9P

359866-00-5P 359866-01-6P 359866-02-7P

359866-03-8P 359866-04-9P 359866-06-1P

359866-07-2P 359866-08-3P 359866-09-4P

359866-10-7P 359866-11-8P 359866-12-9P

359866-13-0P 359866-14-1P 359866-15-2P

359866-16-3P 359866-17-4P 359866-20-9P

359866-22-1P 359866-24-3P 360067-94-3P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

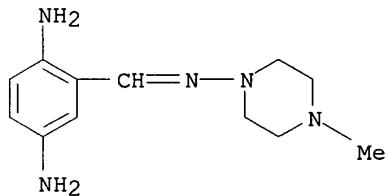
IT 54-85-3, Isonicotinic acid hydrazide 75-04-7, Ethylamine, reactions
 80-17-1, Benzene sulfonic acid hydrazide 100-63-0, Phenylhydrazine
 368-78-5, 3-Trifluoromethyl phenylhydrazine 536-40-3, 4-Chlorobenzoic
 acid hydrazide 536-89-0, m-Tolylhydrazine 537-47-3,
 4-Phenylsemicarbazide 553-53-7, Nicotinic acid hydrazide 606-26-8,
 2-Nitro benzoic acid hydrazide 613-94-5, Benzoic acid hydrazide
 618-40-6, N-Methyl-N-phenylhydrazine 636-97-5, 4-Nitro benzoic acid
 hydrazide 637-80-9, Hydrazineacetic acid ethylester 936-02-7,
 2-Hydroxy benzoic acid hydrazide 1068-57-1, Acetic acid hydrazide
 1576-35-8, Toluene-4-sulfonic acid hydrazide 2213-43-6,
 Piperidine-1-amine 2361-27-5, Thiophene-2-carboxylic acid hydrazide
 3326-71-4, Furan-2-carboxylic acid hydrazide 3619-22-5, 4-Methyl benzoic
 acid hydrazide 4114-31-2, Hydrazinecarboxylic acid ethyl ester
 4319-49-7, Morpholine-4-amine 5351-23-5, 4-Hydroxybenzoic acid hydrazide
 5351-69-9, 4-Phenylthiosemicarbazide 5814-05-1, 2-Chlorobenzoic acid
 hydrazide 6304-39-8, Caprylic acid hydrazide 13431-34-0,
 4-Ethylthiosemicarbazide 21185-13-7, 1-Methylthiosemicarbazide
 24424-99-5, Di-tert-butyl-dicarbonate 60075-23-2, (3,4-Dimethoxyphenyl)
 acetic acid hydrazide 97108-50-4, 2,5-Difluorophenylhydrazine
 187035-29-6, 2-Methoxymethyl-pyrrolidin-1-amine 244104-66-3
 359866-37-8

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

IT 244104-65-2P 325953-36-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

IT 359866-18-5P
 RL: BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant
 or reagent); USES (Uses)
 (prepn. of 2,5-diamino-benzaldehyde-derivates and usage in hair
 dyes)

RN 359866-18-5 HCPLUS
 CN 1,4-Benzenediamine, 2-[[(4-methyl-1-piperazinyl)imino]methyl]- (9CI) (CA
 INDEX NAME)



L26 ANSWER 25 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:594358 HCPLUS
 DN 135:185186
 TI Hair dye formulations containing 1-(3'-aminopropoxy)-2,4-
 diaminobenzene and developers
 PA Wella A.-g., Germany
 SO Ger. Gebrauchsmusterschrift, 29 pp.

CODEN: GGXXFR

DT Patent

LA German

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 20107481	U1	20010816	DE 2001-20107481	20010502
PRAI	DE 2001-20107481		20010502		
OS	MARPAT 135:185186				

AB **Hair** dye formulations contain a developer and coupler combination. The coupler substance can be 1-(3'-aminopropoxy)-2,4-diaminobenzene and/or its salt, and the developer is selected from compds. such as a p-phenylenediamine, a 4,5-diamino-1H-pyrazole, or a 4-aminophenol. Thus, 1-(3'-aminopropoxy)-2,4-diaminobenzene-3HCl was prep'd. by the redn. of N-[2-(3'-aminopropoxy)-5-nitrophenyl]acetamide in the presence of palladium-charcoal and acidification with HCl. A **hair** dye formulation contained the above compd. 0.77, EtOH 10.00, 28% soln. of Na lauryl ether sulfate 10.00, 25% aq. soln. of NH3 10.00, ascorbic acid 0.30, 3-methyl-4-aminophenol 0.31 (developer) and water to 100 g. The formulation imparted a purple-red color to the **hair**.

ST aminopropoxydiaminobenzene **hair** dye developer; diaminobenzene aminopropoxy **hair** dye developer; aminobenzene aminopropoxy **hair** dye developer

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(diamines, arom.; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

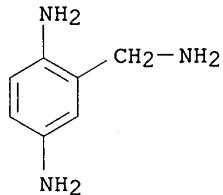
IT **Hair** preparations
(dyes; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(**hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(phenolic; **hair** dye formulations contg. aminopropoxydiaminobenzene and developers)

IT 90-15-3, 1-Naphthalenol 95-88-5 100-01-6, biological studies
108-46-3, 1,3-Benzenediol, biological studies 123-30-8 533-31-3,
1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9 1004-74-6,
Pyrimidinetetramine 2835-95-2 2835-96-3 2835-98-5 2835-99-6
5392-28-9 5697-02-9 6358-09-4 19434-42-5 20055-01-0 26455-21-0
28365-08-4 45514-38-3 54381-16-7 70643-20-8 73793-79-0
73793-80-3 79352-72-0 81329-90-0 83732-72-3 84540-50-1
93841-24-8 93841-25-9 96886-30-5 104333-09-7 109942-17-8,
[1,1'-Biphenyl]-2,5-diamine 126335-43-1 131311-66-5 131657-78-8
132026-22-3 132026-42-7 155601-16-4 155601-17-5 155601-30-2

157469-54-0	157469-73-3	168202-61-7	173994-78-0	217311-43-8
220264-58-4	232284-09-2	244104-61-8	244104-62-9	246244-41-7
306959-12-6	329320-36-7	337906-36-2	337906-38-4	344904-47-8
349649-41-8	349649-42-9	349649-43-0	349649-44-1	349649-46-3
354762-87-1	354762-88-2	354807-04-8		
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
(hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	76214-09-0P			
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)				
(hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	76214-07-8			
RL: RCT (Reactant); RACT (Reactant or reagent)				
(hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
IT	349649-46-3			
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
(hair dye formulations contg. aminopropoxydiaminobenzene and developers)				
RN	349649-46-3	HCAPLUS		
CN	1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX NAME)			



●2 HCl

L26 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:563780 HCAPLUS
 DN 135:138694
 TI Oxidation bases with a guanidine chain, process for their preparation, their use for oxidation dyeing of **keratinous** fibers, dyeing compositions and dyeing processes
 IN Bordier, Thierry; Philippe, Michel
 PA L'Oreal S.A., Fr.
 SO Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW
 DT Patent
 LA French
 IC ICM C07C281-16
 ICS C07C281-18; A61K007-13
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic

Sensitizers)

Section cross-reference(s): 40, 62

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	EP 1120405	A2	20010801	EP 2001-400112	20010116	
	EP 1120405	A3	20021127			
		R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	FR 2804428	A1	20010803	FR 2000-1055	20000127	
	FR 2804428	B1	20020322			
	JP 2001240587	A2	20010904	JP 2001-18269	20010126	
	US 2001034913	A1	20011101	US 2001-770471	20010129	
PRAI	FR 2000-1055	A	20000127			
OS	CASREACT 135:138694; MARPAT 135:138694					
AB	The bases useful for dyeing keratinous fibers and esp. human hairs, are benzene compds. bearing guanidine groups such as C6H2(Z)(X1)(X2)AN:C(NH2)2 (X1, X2 = OH, NHR1, NR1R2 provided that X1 and X2 are not OH group at the same time; R1, R2 = H, C1-8 alkyl, C1-8 monohydroxyalkyl, C2-8 polyhydroxyalkyl, C2-8 aminoalkyl, C1-4 monoalkyl-C1-4 aminoalkyl, etc.; A = divalent linking groups of -CH:N- or -CH2NH-; Z = H, halogen, other substituents, etc.) or their acid salts. Thus, mixing a dissoln. of 9 g 2-hydroxy-5-nitrobenzaldehyde in 200 mL EtOH with 5.95 g aminoguanidine hydrochloride and 7.6 mL triethylamine and heating at 45.degree. for 3 h gave 2-hydroxy-5-nitrobenzylideneaminoguanidine monohydrate which was converted into a 5-amino-2-hydroxybenzylideneaminoguanidine dihydrochloride salt by nitro group redn. and salt forming with HCl soln.					
ST	oxidn dyeing keratinous fiber hydroxyaminobenzylidene aminoguanidine; hair dyeing aminoxybenzylidene aminoguanidine hydrochloride					
IT	Dyes	(basic; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	Hair	(human; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	Synthetic fibers	RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)				
		(keratin; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)				
IT	352230-03-6P	352230-04-7P	352230-05-8P	352230-06-9P		
	352230-07-0P	352230-08-1P	352230-09-2P	352230-10-5P	352230-11-6P	
	352230-12-7P	352230-13-8P	352230-14-9P	352230-15-0P		
	RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)					
	(basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of keratinous fibers, dyeing compns. and dyeing processes)					
IT	108-46-3, 1,3-Dihydroxybenzene, reactions	591-27-5, 3-Aminophenol				
	608-25-3, 1,3-Dihydroxy-2-methylbenzene	26021-57-8, 6-				
	Hydroxybenzomorpholine	55302-96-0, 5-N-(.beta.-Hydroxyethyl)amino-2-methylphenol	66422-95-5			
	RL: RCT (Reactant); RACT (Reactant or reagent)					

(coupler; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

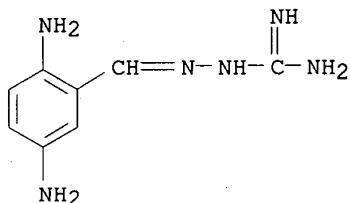
IT 23817-65-4P 290839-31-5P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 1937-19-5, Aminoguanidine hydrochloride 42454-06-8, 5-Hydroxy-2-nitrobenzaldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactant; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

IT 352230-05-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (basic dye; oxidn. bases with a guanidine chain, process for prepn., use for oxidn. dyeing of **keratinous** fibers, dyeing compns. and dyeing processes)

RN 352230-05-8 HCPLUS

CN Hydrazinecarboximidamide, 2-[(2,5-diaminophenyl)methylene]- (9CI) (CA INDEX NAME)



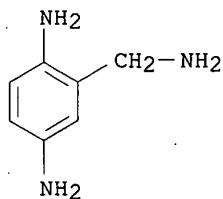
L26 ANSWER 27 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:525892 HCPLUS
 DN 135:111700
 TI Hair dye compositions containing diaminophenoxypropanol and developers
 IN Braun, Hans-Juergen
 PA Wella Aktiengesellschaft, Germany
 SO PCT Int. Appl., 34 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001051019	A1	20010719	WO 2000-EP12847	20001216

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,

SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
 YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
 DE 10000460 A1 20010823 DE 2000-10000460 20000107
 EP 1158954 A1 20011205 EP 2000-985176 20001216
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 BR 2000008850 A 20011226 BR 2000-8850 20001216
 JP 2003519646 T2 20030624 JP 2001-551443 20001216
 US 6503282 B1 20030107 US 2001-913553 20010815
 PRAI DE 2000-10000460 A 20000107
 WO 2000-EP12847 W 20001216
 OS MARPAT 135:111700
 AB A method for dyeing hair is based on a developing substance and a coupler. 3-(2,4-Diaminophenoxy)-1-propanol can be as the coupler and a p-phenylenediamine deriv. of general formula and/or a 4,5-diamino-1H-pyrazole deriv. and/or a p-aminophenol deriv. as the developing substances. The invention also relates to a method for oxidatively dyeing the hair. Thus, a hair dye formulation contained EtOH 100, 28% soln. of sodium lauryl ether sulfate 10.00, 25% aq. NH3 soln. 10.00, ascorbic acid 0.30, and water to 100 g, 3-(2,4-diaminophenoxy)-1-propanol-2HCl 2.5 and 2-(2-hydroxyethyl)-p-phenylenediamine sulfate 2.5 mmol.
 ST diaminophenoxypropanol coupler developer hair dye; propanol
 diaminophenoxy hair dye
 IT 90-15-3, 1-Naphthalenol 95-88-5 106-50-3, 1,4-Benzenediamine,
 biological studies 108-46-3, 1,3-Benzenediol, biological studies
 123-30-8 533-31-3, 1,3-Benzodioxol-5-ol 591-27-5 608-25-3 615-50-9
 2835-95-2 2835-98-5 2835-99-6 5697-02-9 6358-09-4 19434-42-5
 26455-21-0 28365-08-4 45514-38-3 63886-75-9 70643-20-8
 73793-79-0 73793-80-3 78661-34-4 79352-72-0 81329-90-0
 83732-72-3 83763-48-8 84540-50-1 93841-24-8 93841-25-9
 97902-51-7 104333-09-7 109942-17-8, [1,1'-Biphenyl]-2,5-diamine
 126335-43-1 131311-66-5 131657-78-8 132026-22-3 132026-42-7
 155601-16-4 155601-17-5 155601-30-2 157469-54-0 157469-73-3
 168202-61-7 173994-78-0 217311-43-8 220264-58-4 232284-09-2
 244104-61-8 246244-41-7 306959-12-6 307493-94-3 329320-36-7
 337906-36-2 337906-38-4 349649-41-8 349649-42-9 349649-43-0
 349649-44-1 349649-45-2 349649-46-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (hair dye compns. contg. diaminophenoxypropanol and
 developers)
 RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Bristol-Myers Co; 3-(2, 4-Diaminophenoxy)-1, 2-propane diol - useful as
 oxidation coupler for hair dyes
 (2) Bristol-Myers Co; RESEARCH DISCLOSURE 1980, V195(013)
 (3) Henkel Kgaa; DE 19757510 A 1999 HCPLUS
 (4) Henkel Kgaa; WO 9929285 A 1999 HCPLUS
 (5) Henkel Kgaa; WO 9966890 A 1999 HCPLUS
 (6) Lim, M; US 5980584 A 1999 HCPLUS
 IT 349649-46-3
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (hair dye compns. contg. diaminophenoxypropanol and

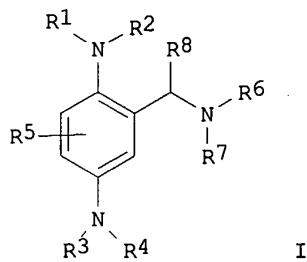
developers)
 RN 349649-46-3 HCAPLUS
 CN 1,4-Benzenediamine, 2-(aminomethyl)-, dihydrochloride (9CI) (CA INDEX
 NAME)



●2 HCl

L26 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:524685 HCAPLUS
 DN 135:111699
 TI Hair dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
 IN Chassot, Laurent; Baun, Hans-Jurgen
 PA Wella Aktiengesellschaft, Germany
 SO Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04;
 C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08;
 C07C215-76
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1116711	A2	20010718	EP 2000-115071	20000727
	EP 1116711	A3	20010926		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2001199941	A2	20010724	JP 2000-364297	20001130
	BR 2000006380	A	20010717	BR 2000-6380	20001218
PRAI	DE 1999-19961272	A	19991218		
OS	MARPAT 135:111699				
GI					



AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methylolithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prep'd. The obtained 2-ethylaminomethyl-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.

ST aminoalkyl diaminobenzene deriv oxidative **hair** dye

IT Dyes
(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT **Hair** preparations
(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT Coupling agents
(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 615-50-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(2,5-Diaminotoluene sulfate; **hair** dyes contg.
2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3, 1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol 92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5, 1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3, 1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine, 2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-Methylenedioxyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2,

2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene
 619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole
 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
 4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0,
 5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
 5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-
 dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
 6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxybenzene 7228-00-4
 16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-
 1,4(2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4(2H)benzoxazine
 26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4,
 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
 39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-
 methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
 methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-
 dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5,
 2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9
 71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-
 tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0
 81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
 hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1,
 3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-
 hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
 (methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol
 93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8,
 5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
 dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
 122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-
 dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
 139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
 1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-
 hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
 methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2
 168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
 RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 350481-06-0P 350481-07-1P 350481-08-2P
 350481-09-3P 350481-10-6P 350481-11-7P
 350481-12-8P 350481-13-9P 350481-14-0P
 350481-15-1P 350481-16-2P 350481-17-3P
 350481-18-4P 350481-19-5P 350481-20-8P
 350481-21-9P 350481-22-0P 350481-23-1P
 350481-24-2P 350481-25-3P 350481-26-4P
 350481-27-5P 350481-28-6P 350481-29-7P
 350481-30-0P 350481-31-1P 350481-32-2P
 350481-33-3P 350481-34-4P 350481-35-5P
 350481-36-6P 350481-37-7P 350481-38-8P
 350481-39-9P 350481-40-2P 350481-41-3P
 350481-42-4P 350481-43-5P 350481-44-6P
 350481-45-7P 350481-46-8P 350481-47-9P
 350481-48-0P 350481-49-1P 350481-50-4P
 350481-51-5P 350481-52-6P 350481-53-7P
 350481-54-8P 350481-55-9P 350481-56-0P
 350481-57-1P 350481-58-2P 350481-59-3P

350481-60-6P 350481-61-7P 350481-62-8P
 350481-63-9P 350481-64-0P 350481-65-1P
 350481-66-2P 350481-67-3P 350481-68-4P
 350481-69-5P 350481-70-8P 350481-71-9P
 350481-72-0P 350481-73-1P 350481-74-2P
 350481-75-3P 350481-76-4P 350481-77-5P
 350481-78-6P 350481-79-7P 350481-80-0P
 350481-81-1P 350481-82-2P 350481-83-3P
 350481-84-4P 350481-85-5P 350481-86-6P
 350481-87-7P 350481-88-8P 350481-89-9P
 350481-90-2P 350481-91-3P 350481-92-4P
 350481-93-5P 350481-94-6P 350481-95-7P
 350481-96-8P 350481-99-1P 350482-00-7P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)

(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 59-51-8, Methionine 62-53-3, Aniline, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3 109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol 109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro-364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2, 3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene 455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1, Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 579-72-6, 2-Dimethylaminobenzaldehyde 587-04-2, 3-Chlorobenzaldehyde 590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8, 3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde 2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol 14268-66-7, 3,4-Methylene dioxyaniline 24424-99-5, Di-tert-butyl dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6 325953-48-8

RL: RCT (Reactant); RACT (Reactant or reagent)

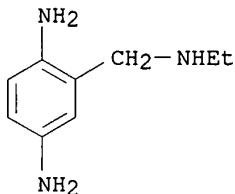
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 350481-06-0P
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

RN 350481-06-0 HCPLUS

CN 1,4-Benzenediamine, 2-[(ethylamino)methyl]-, hydrochloride (9CI) (CA
 INDEX NAME)



● x HCl

L26 ANSWER 29 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:283751 HCPLUS
 DN 134:300614
 TI Direct hair dyes containing hydroxyanthraquinones
 IN Rose, David; Hoeffkes, Horst; Meinigke, Bernd
 PA Henkel Kommanditgesellschaft auf Aktien, Germany
 SO PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 IC ICM A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001026615	A2	20010419	WO 2000-EP9684	20001004
	WO 2001026615	A3	20011108		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19949034	A1	20010419	DE 1999-19949034	19991012
	EP 1231889	A2	20020821	EP 2000-972674	20001004
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
	JP 2003511401	T2	20030325	JP 2001-529406	20001004
PRAI	DE 1999-19949034	A	19991012		
	WO 2000-EP9684	W	20001004		
OS	MARPAT 134:300614				
AB	Coloring and toning agents for human hair, comprise at least 1 hydroxyanthraquinone deriv. as a direct dye, in a cosmetically acceptable				

vehicle. The inventive agents permit hair coloring with outstanding fastness. Thus, a hair cream contained cetearyl alc. 1.00, fatty alc. mixt. based on coconut oil 1.00, Akypo RLM45N 1.10, propylparaben 0.05, methylparaben 0.15, and water 70.00 g. The 2nd part of the formulation comprised ammonium sulfate 1.00, direct dye of the invention 1.00, 25% NH₃ soln. to pH 9.0, and water 10.00 g. The 2 parts were mixed to give a hair dye formulation.

ST hydroxyanthraquinone hair dye phenol; anthraquinone hair dye phenol

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; direct hair dyes contg. hydroxyanthraquinones)

IT Polyelectrolytes
(anionic; direct hair dyes contg. hydroxyanthraquinones)

IT Polyelectrolytes
(cationic; direct hair dyes contg. hydroxyanthraquinones)

IT Anthraquinone dyes
Surfactants
(direct hair dyes contg. hydroxyanthraquinones)

IT Phenols, biological studies
Polymers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct hair dyes contg. hydroxyanthraquinones)

IT Hair preparations
(dyes, oxidative; direct hair dyes contg. hydroxyanthraquinones)

IT Hair preparations
(dyes; direct hair dyes contg. hydroxyanthraquinones)

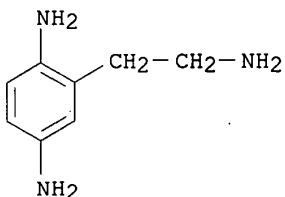
IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(naphthols; direct hair dyes contg. hydroxyanthraquinones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(phenolic; direct hair dyes contg. hydroxyanthraquinones)

IT 83-56-7, 1,5-Dihydroxynaphthalene 90-15-3, 1-Naphthol 95-70-5, p-Toluenediamine 95-88-5, 4-ChloroResorcinol 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 123-30-8, p-Aminophenol 488-87-9, 2,5-DiMethylresorcinol 504-15-4, 5-Methylresorcinol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 608-25-3, 2-Methylresorcinol 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 2835-95-2, 5-Amino-2-methylphenol 2835-99-6, 4-Amino-3-methylphenol 16867-03-1, 2-Amino-3-hydroxypyridine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 79352-72-0, 2-Aminomethyl-4-aminophenol 84540-50-1, 2-Chloro-6-methyl-3-aminophenol 251450-62-1, 2,6-Dihydroxy-3,4-diaminopyridine 334884-66-1 334884-68-3 334884-70-7 334884-72-9 334884-74-1 334884-76-3 334884-78-5 334884-80-9 334884-82-1 334884-84-3 **334884-86-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(direct hair dyes contg. hydroxyanthraquinones)

IT **334884-86-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(direct hair dyes contg. hydroxyanthraquinones)
 RN 334884-86-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(2-aminoethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 30 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:239829 HCPLUS
 DN 134:267732
 TI Production of 2-(aminomethyl)-1,4-diaminobenzene and its salts and their use in oxidative hair dyes
 IN Goettel, Otto; Pirrello, Aline; Hayoz, Andre
 PA Wella A.-G., Germany
 SO Ger., 16 pp.
 CODEN: GWXXAW
 DT Patent
 LA German
 IC ICM C07C209-62
 ICS C07C209-36; C07C211-50; A61K007-13; D06P001-38
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 25, 62
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19961229	C1	20010405	DE 1999-19961229	19991218
	EP 1110942	A2	20010627	EP 2000-115959	20000726
	EP 1110942	A3	20020206		
		R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
	EP 1310479	A1	20030514	EP 2003-3356	20000726
		R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY			
	US 6461390	B1	20021008	US 2000-668330	20000922
	JP 2001172231	A2	20010626	JP 2000-312819	20001013
	BR 2000005918	A	20010717	BR 2000-5918	20001215
PRAI	DE 1999-19961229	A	19991218		
	EP 2000-115959	A3	20000726		
OS	CASREACT 134:267732; MARPAT 134:267732				
AB	2-(Aminomethyl)-1,4-diaminobenzene or its salts [2,5-(H ₂ N)2C ₆ H ₃ CH ₂ NH ₂ .nHX] (n = 0-3; HX = org. or inorg. acid) is obtained by first treating an 2-(acylaminomethyl)-4-nitrophenol with a haloacetamide, giving a 2-(acylaminomethyl)-4-nitrophenoxyacetamide, followed by aminolysis and redn. in the presence of HCl to the 1,4-diamino-2-(acylaminomethyl)benzene dihydrochloride, which is deacylated to 2-(aminomethyl)-1,4-diaminobenzene trihydrochloride; this may be converted to the free base (n = 0) or a salt with HX.				
ST	aminomethylphenylenediamine prodn oxidative hair dye component				

IT Hair preparations
(dyes, oxidative; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

IT 165120-67-2P 332097-12-8P, 2-(Acetamidomethyl)-4-nitrophenoxyacetamide
332097-13-9P, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

IT 7722-84-1, Hydrogen peroxide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(oxidizing agent in oxidative hair dyes)

IT **67199-87-5P**, 2-(Aminomethyl)-1,4-diaminobenzene
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

IT **332097-11-7P**, 2-(Aminomethyl)-1,4-diaminobenzene trihydrochloride
332097-14-0P, 2-(Aminomethyl)-1,4-diaminobenzene disulfate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

IT 79-07-2, Chloroacetamide 5804-36-4 7647-01-0, Hydrochloric acid, reactions 7664-93-9, Sulfuric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

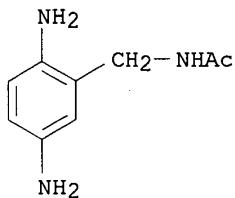
RE

(1) Anon; Die Vergleichsversuche 2000
(2) Anon; J Org Chem 1983, V48, P5140
(3) Anon; Liebigs Ann d Chem 1978, P398
(4) Anon; Synthesis 1984, P85

IT **332097-13-9P**, 2-(Acetamidomethyl)-1,4-diaminobenzene dihydrochloride
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; prodn. of (aminomethyl)diaminobenzene and its salts and their use in oxidative hair dyes)

RN 332097-13-9 HCPLUS

CN Acetamide, N-[(2,5-diaminophenyl)methyl]-, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

L26 ANSWER 31 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:114667 HCPLUS
 DN 134:183268
 TI Hair dye compositions containing 1,4-diaminobenzenes
 IN Chassot, Laurent; Braun, Hans-Juergen
 PA Wella A.-G., Germany
 SO Ger., 14 pp.
 CODEN: GWXXAW
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS C07C211-54; C07C211-56; C07C215-68; C07C215-82; C07C217-82;
 A61K007-13
 CC 62-3 (Essential Oils and Cosmetics)
 Section cross-reference(s): 25
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19961274 EP 1108708 EP 1108708	C1 A1 B1	20010215 20010620 20030108	DE 1999-19961274 EP 2000-121908	19991218 20001007
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO AT 230719 US 6602302 JP 2001199942 BR 2000005896 US 2003110578			AT 2000-121908 US 2000-706000 JP 2000-357603 BR 2000-5896 US 2002-251765	20001007 20001103 20001124 20001215 20020920
PRAI	DE 1999-19961274 US 2000-706000	A A1	19991218 20001103		
OS	MARPAT 134:183268				
AB	2,5-Diamino-1-aminomethylbenzene derivs. or their water-sol. salts are useful for oxidative hair dyeing compns. Thus, 4-(2,5-diaminobenzylamino)aniline-HCl (I) was prep'd. by the reductive coupling of 4-tert-butyloxycarbonylaminoaniline with N-(4-tert-butyloxycarbonyl-3-formylphenyl)carbamic acid tert-Bu ester and removal of the protective groups. A compn. was prep'd. contg. I 0.37, 2-amino-5-methylphenol 0.18, potassium oleate 10.0, ammonia 10.0, EtOH 10.0, ascorbic acid 0.3, and water to 100 g. The above compn. with 6% H2O2 was applied to the hair, and the hair developed medium-brown color.				
ST	hair dye oxidative diaminobenzene prep'n; aminobenzene				

hair dye oxidative prep; benzene amino hair dye
oxidative prepn

IT Hair preparations
(dyes, oxidative; hair dye compns. contg. diaminobenzenes)

IT Hair preparations
(dyes; hair dye compns. contg. diaminobenzenes)

IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 96-91-3,
2-Amino-4,6-dinitrophenol 106-50-3, 1,4-Diaminobenzene, biological
studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 591-27-5,
3-Aminophenol 608-25-3, 1,3-Dihydroxy-2-methylbenzene 615-50-9,
2,5-Diaminotoluene sulfate 2835-95-2, 5-Amino-2-methylphenol
2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 17672-22-9,
2-Amino-6-methylphenol 59320-13-7 **67199-87-5** 70643-20-8
74612-12-7, 2,5-Diaminotoluene hydrochloride 78886-51-8 93841-25-9
131657-78-8 **325952-85-0** **325952-87-2**
325952-88-3 **325952-89-4** **325952-90-7**
325952-91-8 325952-92-9 325952-93-0 325952-94-1 325952-95-2
325952-96-3 325952-97-4 325952-98-5 325952-99-6 325953-00-2
325953-01-3 325953-02-4 325953-03-5 **325953-04-6**
325953-05-7 **325953-06-8** **325953-07-9**
325953-08-0 **325953-09-1** **325953-10-4**
325953-11-5 **325953-12-6** **325953-13-7**
325953-14-8 **325953-15-9** **325953-16-0**
325953-17-1 **325953-18-2** **325953-19-3**
325953-20-6 **325953-21-7** **325953-22-8**
325953-23-9 **325953-24-0** **325953-25-1**
325953-26-2 **325953-27-3** **325953-28-4**
325953-29-5 **325953-30-8** **325953-31-9**
325953-32-0 **325953-33-1** **325953-34-2**
325953-35-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. contg. diaminobenzenes)

IT **325953-37-5P** **325953-38-6P** **325953-39-7P**
325953-42-2P **325953-43-3P** **325953-44-4P**
325953-47-7P **325953-49-9P**
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(hair dye compns. contg. diaminobenzenes)

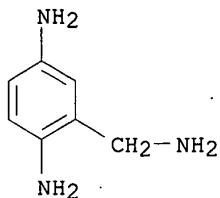
IT 99-98-9, 4-Amino-N,N-dimethylaniline 68621-88-5 71026-66-9
244104-66-3 325953-40-0 325953-41-1 325953-45-5 325953-46-6
325953-48-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(hair dye compns. contg. diaminobenzenes)

IT 244104-65-2P 325953-36-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(hair dye compns. contg. diaminobenzenes)

IT **67199-87-5**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. contg. diaminobenzenes)

RN 67199-87-5 HCPLUS

CN 1,4-Benzenediamine, 2-(aminomethyl)- (9CI) (CA INDEX NAME)



L26 ANSWER 32 OF 32 HCPLUS COPYRIGHT 2003 ACS on STN

AN 1999:77546 HCPLUS

DN 130:158261

TI Novel oxidative hair dye compositions containing cationic oxidation bases

IN Genet, Alain; Lagrange, Alain

PA L'Oreal, Fr.

SO PCT Int. Appl., 72 pp.

CODEN: PIXXD2

DT Patent

LA French

IC ICM C07D233-54

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

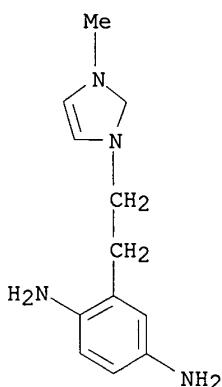
Section cross-reference(s): 28

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9903836	A1	19990128	WO 1998-FR1535	19980713
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU; ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	FR 2766178	A1	19990122	FR 1997-9028	19970716
	FR 2766178	B1	20000317		
	AU 9887355	A1	19990210	AU 1998-87355	19980713
	EP 928289	A1	19990714	EP 1998-938745	19980713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2000503037	T2	20000314	JP 1999-506576	19980713
PRAI	FR 1997-9028		19970716		
	WO 1998-FR1535		19980713		
OS	MARPAT 130:158261				
AB	Novel monobenzene oxidn. bases comprise at least a cationic group being selected among the aliph. chains contg. at least a quaternized unsatd. cycle. Their use for oxidn. dyeing of keratin fibers, dyeing compns. contg. them and oxidn. dyeing methods using them is disclosed. Thus, 1-[2-(4-aminophenylamino)-ethyl]-3-methyl-3H-imidazol-1-ium (I) was prep'd. by redn. of 3-methyl-1-[2-(4-nitrophenylamino)-ethyl]-3H-imidazol-1-ium and reaction with HCl. A hair dye prepn. contained I 1.036, 2-methyl-5-N-(.beta.-hydroxyethyl)aminophenol 0.543 and excipient q.s. 100 g.				

ST oxidative hair dye cationic oxidn base
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(C1-4-aliph.; novel oxidative hair dye compns. contg.
cationic oxidn. bases)
IT Bromates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(alkali metal salts; novel oxidative hair dye compns. contg.
cationic oxidn. bases)
IT Alcohols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aralkyl; novel oxidative hair dye compns. contg. cationic
oxidn. bases)
IT Hair preparations
(dyes, oxidative; novel oxidative hair dye compns. contg.
cationic oxidn. bases)
IT Glycols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(ethers; novel oxidative hair dye compns. contg. cationic
oxidn. bases)
IT Ethers, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(glycol; novel oxidative hair dye compns. contg. cationic
oxidn. bases)
IT Coupling agents
Oxidizing agents
(novel oxidative hair dye compns. contg. cationic oxidn.
bases)
IT Bisphenols
Glycols, biological studies
Peroxysulfates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(novel oxidative hair dye compns. contg. cationic oxidn.
bases)
IT Salts, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(of peroxy acids; novel oxidative hair dye compns. contg.
cationic oxidn. bases)
IT Group IIIA element compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(perborates; novel oxidative hair dye compns. contg. cationic
oxidn. bases)
IT 56-81-5, 1,2,3-Propanetriol, biological studies 95-55-6 108-45-2D,
1,3-Benzenediamine, derivs., biological studies 108-46-3,
1,3-Benzenediol, biological studies 123-30-8 591-27-5 591-27-5D,
derivs. 7722-84-1, Hydrogen peroxide (H₂O₂), biological studies
55302-96-0, 2-Methyl-5-N-(.beta.-hydroxyethyl)aminophenol 66422-95-5
220159-33-1 220159-35-3 220159-36-4 220159-37-5 220159-38-6
220159-40-0 220159-41-1 220159-42-2 220159-44-4 220159-45-5
220159-46-6 220159-47-7 220159-49-9 220159-51-3

220159-54-6 220159-55-7 220159-57-9 220159-58-0 220159-59-1
 220159-60-4 220159-62-6 220159-63-7
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (novel oxidative hair dye compns. contg. cationic oxidn.
 bases)
 IT 220158-78-1P 220158-81-6P 220158-86-1P 220158-93-0P 220158-94-1P
 220159-00-2P 220159-04-6P 220159-08-0P 220159-10-4P
220159-12-6P 220159-16-0P 220159-20-6P 220159-24-0P
 220159-29-5P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (novel oxidative hair dye compns. contg. cationic oxidn.
 bases)
 IT 77-78-1, Dimethylsulfate 79-04-9, Chloroacetyl chloride 96-20-8,
 2-Amino-butan-1-ol 108-24-7 124-63-0, Mesyl chloride 142-28-9,
 1,3-Dichloropropane 350-46-9, 1-Fluoro-4-nitrobenzene 369-34-6,
 1,2-Difluoro-4-nitrobenzene 446-33-3, 4-Fluoro-2-methyl-1-nitrobenzene
 455-88-9 616-47-7, 1-Methyl-1H-imidazole 2973-19-5,
 2-Chloromethyl-4-nitrophenol 5036-48-6, 3-Imidazol-1-ylpropylamine
 16588-02-6, 2-Chloro-5-nitro-benzonitrile 55743-71-0 55851-35-9
 56932-44-6 59884-42-3 86771-81-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (novel oxidative hair dye compns. contg. cationic oxidn.
 bases)
 IT 25351-89-7P 160950-38-9P 220158-79-2P 220158-82-7P 220158-84-9P
 220158-85-0P 220158-87-2P 220158-89-4P 220158-90-7P 220158-92-9P
 220158-96-3P 220158-98-5P 220159-01-3P 220159-03-5P 220159-05-7P
 220159-07-9P 220159-09-1P 220159-11-5P 220159-13-7P 220159-14-8P
 220159-15-9P 220159-17-1P 220159-18-2P 220159-21-7P 220159-25-1P
 220159-26-2P 220159-28-4P 220159-30-8P 220159-32-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (novel oxidative hair dye compns. contg. cationic oxidn.
 bases)
 RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Badische Anilin- & Soda-Fabrik Aktiengesellschaft; BE 616439 A 1962 HCAPLUS
 (2) Badische Anilin- & Soda-Fabrik Aktiengesellschaft; DE 1135589 B 1962
 HCAPLUS
 (3) Bristol Myers Co; EP 0544400 A 1993 HCAPLUS
 (4) Ciba Geigy Ag; WO 9501772 A 1995 HCAPLUS
 (5) Henkel & Cie GmbH; DE 1292784 B 1969 HCAPLUS
 (6) L'OrEal; FR 1391675 A 1965
 (7) Tong, L; Journal of the American Chemical Society 1960, V82(8), P1988
 IT **220159-46-6**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (novel oxidative hair dye compns. contg. cationic oxidn.
 bases)
 RN 220159-46-6 HCAPLUS
 CN 1H-Imidazolium, 1-[2-(2,5-diaminophenyl)ethyl]-3-methyl-, chloride (9CI)
 (CA INDEX NAME)

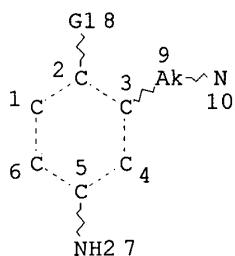


● Cl⁻

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

=> d que
 L13 SCR 1568
 L18 STR

more exact subset search



623 structures

VAR G1=OH/NH2
 NODE ATTRIBUTES:
 NSPEC IS RC AT 10
 CONNECT IS E2 RC AT 9
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RSPEC 1
 NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
 L21 623 SEA FILE=REGISTRY SSS FUL L18 AND L13
 L27 STR

compd., that includes at least one substituted 2-aminoalkyl-1,4-diaminobenzene compd. The compn. further comprises at least one direct dye. Prepn. of substituted 2-aminoalkyl-1,4-diaminobenzene compds. is also described. For example, 1,4-diamino-2-(1-butylaminoethyl)benzene hydrochloride developer was prepd. and formulated into an oxidn. hair dye precursor compn. with couplers 1,3-dihydroxybenzene, 1,3-diamino-4-(2-hydroxyethoxy)-benzene sulfate, 5-amino-2-methyl-phenol, or 1-naphthol to give bright light blond, gray-blue, purple, or gray-rose died hair colors, resp.

ST aminoalkyl diaminobenzene prepns hair dye developer; oxidative hair dye precursor coupler diaminobenzene developer

IT Hair preparations
(dyes, oxidative; oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 90-15-3, 1-Naphthol 95-88-5, 1-Chloro-2,4-dihydroxybenzene 106-50-3, 1,4-Diaminobenzene, biological studies 108-45-2, 1,3-Diaminobenzene, biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies 533-31-3, 3,4-Methylenedioxyphephenol 608-25-3, 2-Methyl-1,3-dihydroxybenzene 2835-98-5, 2-Amino-5-methylphenol 2835-99-6, 3-Methyl-4-aminophenol 5697-02-9, 1-Acetoxy-2-methylnaphthalene 6369-59-1, 2,5-Diaminotoluene sulfate 26455-21-0, N-(3-Dimethylamino)phenylurea 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 71005-35-1 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 84540-50-1, 3-Amino-2-chloro-6-methylphenol 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 94158-14-2 135043-64-0, 4-Amino-2-aminomethylphenol dihydrochloride 159621-77-9 164919-03-3 217311-43-8, 2,4-Diamino-5-fluorotoluene sulfate 282542-32-9 350482-01-8 350482-02-9, 5-Amino-4-fluoro-2-methylphenol sulfate 364343-79-3

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

IT 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P 350481-11-7P
350481-13-9P 350481-15-1P 350481-16-2P 350481-17-3P 350481-18-4P
350481-19-5P 350481-20-8P 350481-21-9P 350481-22-0P 350481-23-1P
350481-24-2P 350481-25-3P 350481-26-4P 350481-27-5P 350481-29-7P
350481-30-0P 350481-31-1P 350481-32-2P 350481-36-6P 350481-40-2P
350481-41-3P 350481-43-5P 350481-44-6P 350481-45-7P 350481-46-8P
350481-47-9P 350481-48-0P 350481-50-4P 350481-51-5P 350481-52-6P
350481-53-7P 350481-54-8P 350481-56-0P 350481-57-1P 350481-58-2P
350481-59-3P 350481-61-7P 350481-62-8P 350481-63-9P 350481-64-0P
350481-65-1P 350481-66-2P 350481-67-3P 350481-69-5P 350481-70-8P
350481-71-9P 350481-72-0P 350481-73-1P **350481-74-2P**
350481-75-3P 350481-76-4P 350481-77-5P
350481-78-6P 350481-79-7P 350481-80-0P
350481-81-1P 350481-82-2P 350481-84-4P
350481-85-5P 350481-87-7P 350481-88-8P
350481-89-9P 350481-90-2P 350481-91-3P
350481-92-4P 350481-93-5P 350481-94-6P
350481-95-7P 350481-96-8P 350481-99-1P 350482-00-7P
510774-40-0P 510774-41-1P 510774-42-2P 510774-43-3P 510774-44-4P
510774-45-5P 510774-46-6P 510774-47-7P 510774-48-8P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 63-68-3,
 L-Methionine, reactions 68-12-2, Dimethylformamide, reactions 70-47-3,
 Asparagine, reactions 75-04-7, Ethylamine, reactions 75-31-0,
 Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 96-20-8,
 2-Amino-1-butanol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3,
 2-Thiophenecarboxaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9,
 4-Amino-N,N-dimethylaniline 100-10-7, 4-Dimethylaminobenzaldehyde
 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine
 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline,
 reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine
 107-15-3, Ethylenediamine, reactions 108-00-9, 2-Dimethylaminoethylamine
 109-01-3 109-55-7, 3-Dimethylaminopropylamine 109-83-1,
 2-Methylaminoethanol 109-85-3, 2-Methoxyethylamine 110-58-7,
 Pentylamine 110-73-6, 2-Ethylaminoethanol 110-91-8, Morpholine,
 reactions 111-42-2, Diethanolamine, reactions 120-57-0,
 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde
 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 141-43-5,
 Ethanolamine, reactions 147-85-3, L-Proline, reactions 364-73-8,
 1-Bromo-4-fluoro-3-nitrobenzene 364-74-9 364-76-1 437-83-2,
 3-Fluoro-2-methoxyaniline 446-35-5 455-14-1, 4-Trifluoromethylaniline
 498-62-4, 3-Thiophenecarboxaldehyde 498-63-5, Prolinol 500-22-1,
 Pyridine-3-carboxaldehyde 525-72-4, 1-Methyl-6,7-dihydroxy-1,2,3,4-
 tetrahydroisoquinoline 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol
 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions
 587-04-2, 3-Chlorobenzaldehyde 590-86-3 616-30-8 617-89-0,
 Furfurylamine 765-30-0, Cyclopropylamine 872-85-5,
 Pyridine-4-carboxaldehyde 1001-53-2, N-Acetylethylenediamine
 1117-97-1, O,N-Dimethylhydroxylamine 1121-60-4, Pyridin-2-carboxaldehyde
 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine
 2043-61-0, Cyclohexanecarboxaldehyde 2454-37-7, 3-(1-
 Hydroxyethyl)aniline 2516-47-4, Aminomethylcyclopropane 2812-47-7,
 Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9,
 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0,
 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6,
 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0,
 Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6,
 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxyaniline 6859-99-0,
 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitrobenzoic acid
 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol
 14268-66-7, 3,4-Methylenedioxyaniline 24424-99-5, Di(tert-butyl
 dicarbonate) 25739-59-7 35303-76-5, 4-(2-Aminoethyl)benzenesulfonamide
 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidinobenzaldehyde
 68621-88-5 71026-66-9 244104-65-2 325953-40-0 325953-41-1
 325953-45-5 325953-46-6 325953-48-8 510774-39-7

RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

IT 325953-36-4P 350481-97-9P 350481-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxidative hair dye precursor compns. contg. substituted
 aminoalkyl diaminobenzene compds. developers)

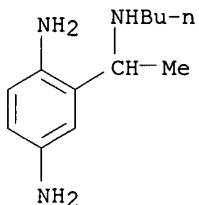
IT 350481-74-2P 350481-75-3P 350481-76-4P
 350481-77-5P 350481-78-6P 350481-79-7P
 350481-80-0P 350481-81-1P 350481-82-2P

350481-84-4P 350481-85-5P 350481-87-7P
 350481-88-8P 350481-89-9P 350481-90-2P
 350481-91-3P 350481-92-4P 350481-93-5P
 350481-94-6P 350481-95-7P 350481-96-8P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (oxidative hair dye precursor compns. contg. substituted aminoalkyl diaminobenzene compds. developers)

RN 350481-74-2 HCPLUS

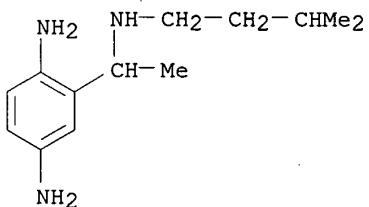
CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-75-3 HCPLUS

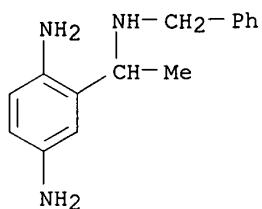
CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-76-4 HCPLUS

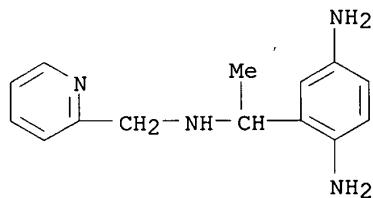
CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-77-5 HCPLUS

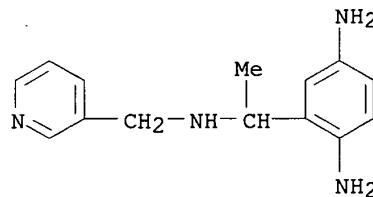
CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-78-6 HCPLUS

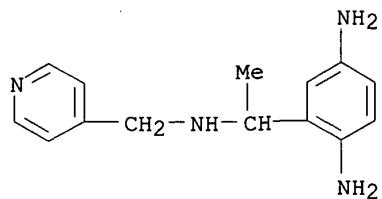
CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-79-7 HCPLUS

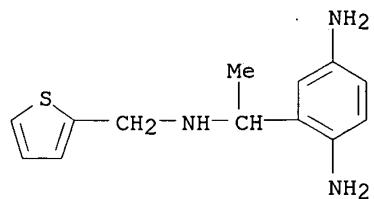
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-80-0 HCPLUS

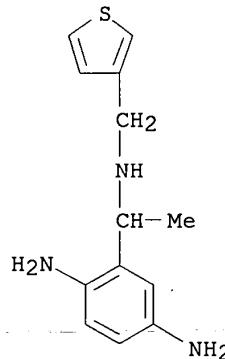
CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

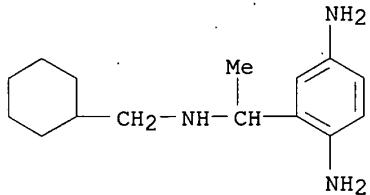
RN 350481-81-1 HCPLUS

CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

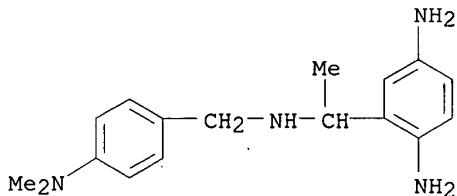
RN 350481-82-2 HCPLUS

CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)

● x HCl

RN 350481-84-4 HCPLUS

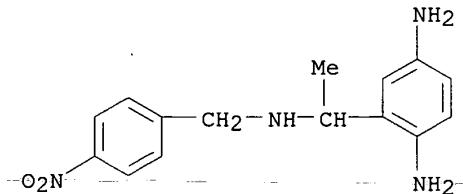
CN 1,4-Benzenediamine, 2-[1-[[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-85-5 HCPLUS

CN 1,4-Benzenediamine, 2-[1-[[[4-nitrophenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)

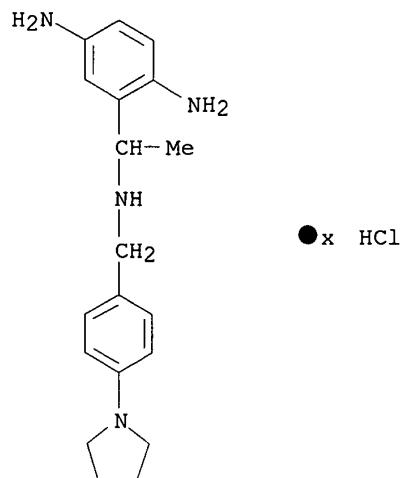


● x HCl

RN 350481-87-7 HCPLUS

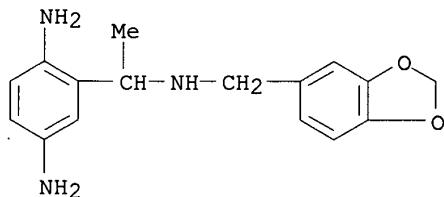
KATHLEEN FULLER EIC 1700/PARKER LAW 308-4290

CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



RN 350481-88-8 HCPLUS

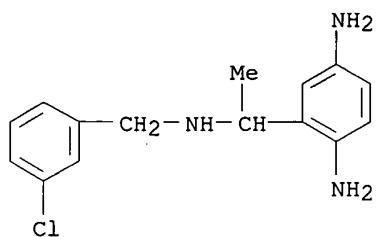
CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-89-9 HCPLUS

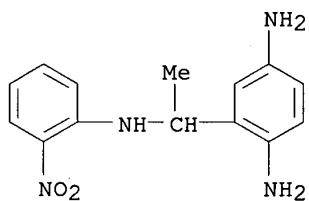
CN 1,4-Benzenediamine, 2-[1-[(3-chlorophenyl)methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-90-2 HCPLUS

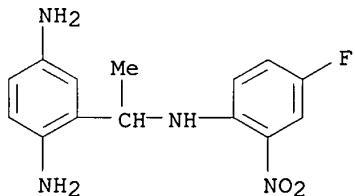
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-91-3 HCPLUS

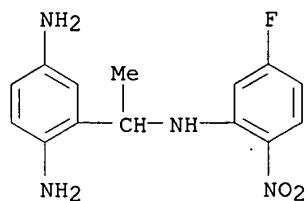
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-92-4 HCPLUS

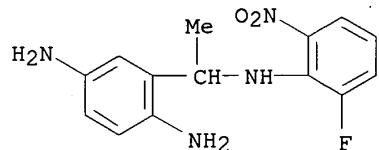
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-,
hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-93-5 HCPLUS

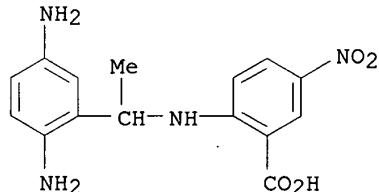
CN 1,4-Benzenediamine, 2-[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-94-6 HCPLUS

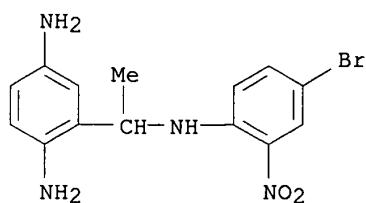
CN Benzoic acid, 2-[(1-(2,5-diaminophenyl)ethyl)amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-95-7 HCPLUS

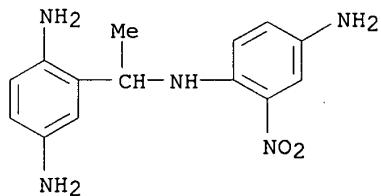
CN 1,4-Benzenediamine, 2-[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-96-8 HCPLUS

CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

L32 ANSWER 2 OF 3 HCPLUS COPYRIGHT 2003 ACS on STN

AN 2002:574866 HCPLUS

DN 137:129534

TI Primary intermediates for oxidative coloration of hair

IN Lim, Mu-III; Pan, Yuh-guo

PA Clairol Incorporated, USA

SO PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 25

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002058632 A2 20020801 WO 2002-US1621 20020118

WO 2002058632 A3 20030403

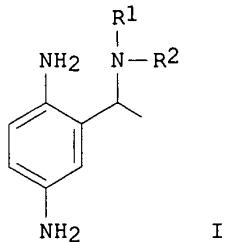
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Appol

VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
 CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002144357 A1 20021010 US 2002-52321 20020118
 PRAI US 2001-263567P P 20010123
 OS MARPAT 137:129534
 GI

applicants



AB Primary intermediates of hair coloring compns. of hair
 oxidative of hair are compds. of the formula [I]: where R1 and
 R2 are each individually selected from a hydrogen atom, a C1 to C3 alkyl
 group, a C1 to C5 mono or dihydroxyalkyl group; Ph or benzyl optionally
 substituted with an alkoxy group, or R1 and R2 together with the nitrogen
 atom to which they are attached form a piperazine, piperidine, imidazole,
 or morpholine ring.

ST hair dye primary intermediate oxidn benzenediamine
 IT Oxidizing agents
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)
 IT Hair preparations
 (dyes; 2-(aminoethyl)-1,4-benzenediamines primary intermediates for
 oxidative coloration of hair)
 IT 90-15-3, 1-Naphthol 95-55-6, 2-Aminophenol 95-70-5,
 2-Methylbenzene-1,4-diamine 95-88-5, 4-Chlorobenzene-1,3-diol
 106-50-3, p-Phenylenediamine, biological studies 108-46-3, Resorcinol,
 biological studies 123-30-8, 4-Aminophenol 150-75-4,
 4-Methylaminophenol 591-27-5, 3-Aminophenol 608-25-3,
 2-Methylbenzene-1,3-diol 1004-74-6, Pyrimidinetetramine 2380-86-1,
 1H-Indol-6-ol 2835-95-2, 5-Amino-2-methylphenol 2835-98-5,
 2-Amino-5-methylphenol 2835-99-6, 4-Amino-3-methylphenol 7469-77-4,
 2-Methyl-1-naphthol 7575-35-1 16867-03-1, 2-Aminopyridin-3-ol
 17672-22-9, 2-Amino-6-methylphenol 26021-57-8 41927-22-4,
 4-Methyl-2-phenyl-2,4-dihydro-3H-pyrazol-3-one 53222-92-7,
 3-Amino-2-methylphenol 55302-96-0, 5-(2-Hydroxyethylamino)-2-
 methylphenol 70643-19-5, 2-(2,4-Diaminophenoxy)ethanol 83763-47-7
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 94082-77-6 129697-50-3
 131311-66-5 155601-17-5 157469-54-0 220264-60-8 307493-94-3,
 3-(2,4-Diaminophenoxy)-1-propanol 329320-36-7
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)
 IT 444177-65-5P 444177-66-6P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

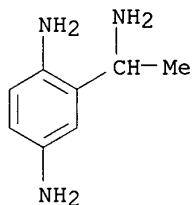
study); PREP (Preparation); USES (Uses)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)

IT 32580-41-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)

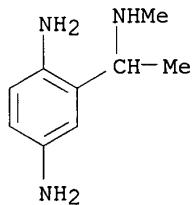
IT 444177-67-7P 444177-68-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)

IT 444177-65-5P 444177-66-6P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (2-(aminoethyl)-1,4-benzenediamines primary intermediates for oxidative
 coloration of hair)

RN 444177-65-5 HCPLUS
 CN 1,4-Benzenediamine, 2-(1-aminoethyl)- (9CI) (CA INDEX NAME)



RN 444177-66-6 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-(methylamino)ethyl]- (9CI) (CA INDEX NAME)



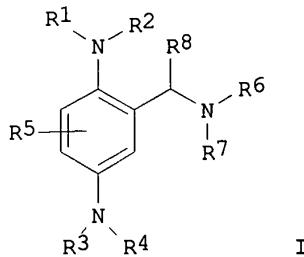
L32 ANSWER 3 OF 3 HCPLUS COPYRIGHT 2003 ACS on STN
 AN 2001:524685 HCPLUS
 DN 135:111699
 TI Hair dyes containing 2-aminoalkyl-1,4-diaminobenzene derivatives
 IN Chassot, Laurent; Baun, Hans-Jurgen
 PA Wella Aktiengesellschaft, Germany
 SO Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C07C211-51
 ICS A61K007-13; C07D215-38; C07D307-52; C07D295-12; C07D241-04;

C07D307-12; C07C233-36; C07C239-20; C07C215-14; C07C217-08;
C07C215-76

CC 62-3 (Essential Oils and Cosmetics)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1116711	A2	20010718	EP 2000-115071	20000727
	EP 1116711	A3	20010926	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO	
	JP 2001199941	A2	20010724	JP 2000-364297	20001130
	BR 2000006380	A	20010717	BR 2000-6380	20001218
PRAI	DE 1999-19961272	A	19991218		
OS	MARPAT 135:111699				
GI					



AB The invention concerns oxidative **hair** dyes that contain as developers 2-aminoalkyl-1,4-diaminobenzene derivs. or their physiol. compatible water sol. salts of the formula (I), where R1-R7 are defined. The **hair** dye compns. further contain another developer, e.g. 1,4-diaminobenzene, 2,5-diaminotoluene; coupling agents, e.g. 2,6-diaminopyridine; and at least one direct dye. Thus, bromo-p-phenylenediamine-HCl was converted with di-tert-Bu dicarbonate to 2,5-bis(tert-butoxycarbonylamino)bromobenzene, and then with DMF in the presence of methylolithium and butyllithium to (2-formyl-1,4-phenylene)biscarbamic acid di(tert-butyl)ester. This compd. was reacted with ethylamine and the hydrochloride of the formed substance was prep'd. The obtained 2-ethylaminomethyl-1,4-diamino benzene hydrochloride was used (0.0125 mmol) in a **hair** dye, that further contained: 1,3-dihydroxybenzene (coupling agent) 0.0125 mmol; potassium oleate (8% aq. soln.) 0.01 g; ammonia (22% aq. soln.) 0.01 g; ethanol 0.01 g; ascorbic acid 0.003 g; water to 1 g. The dye resulted a light blond color.

ST aminoalkyl diaminobenzene deriv oxidative **hair** dye

IT Dyes

(direct; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT **hair** preparations

(dyes, oxidative; **hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT Coupling agents

(**hair** dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 615-50-9

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(2,5-Diaminotoluene sulfate; hair dyes contg.
2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 28365-08-4 53347-10-7
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(direct dye; hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene
derivs.)

IT 83-56-7, 1,5-Dihydroxynaphthalene 89-25-8, 3-Methyl-1-phenyl-5-
pyrazolone 89-83-8, 5-Methyl-2-(1-methylethyl)phenol 90-15-3,
1-Naphthol 91-56-5, 2,3-Indolinedione 91-68-9, 3-Diethylaminophenol
92-44-4, 2,3-Dihydroxynaphthalene 95-70-5, 2,5-Diaminotoluene 95-88-5,
1,3-Benzenediol, 4-chloro- 99-07-0, 3-Dimethylaminophenol 106-50-3,
1,4-Diaminobenzene, biological studies 106-50-3D, 1,4-Benzenediamine,
2-aminoalkyl derivs., biological studies 108-45-2, 1,3-Diaminobenzene,
biological studies 108-46-3, 1,3-Dihydroxybenzene, biological studies
137-19-9 141-86-6, 2,6-Diaminopyridine 533-31-3, 3,4-
Methylenedioxypyphenol 575-38-2, 1,7-Dihydroxynaphthalene 582-17-2,
2,7-Dihydroxynaphthalene 608-25-3, 1,3-Dihydroxy-2-methylbenzene
619-05-6, 3,4-Diaminobenzoic acid 770-25-2 1953-54-4, 5-Hydroxyindole
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0,
5,6-Dihydroxyindole 5349-76-8, 2,4-Diamino-1-methoxy-5-methylbenzene
5697-02-9, 2-Methyl-1-naphthyl-acetate 6201-65-6, 2-Chloro-1,3-
dihydroxybenzene 6265-21-0, 3-[(2-Hydroxyethyl)amino]aniline
6941-70-4, 6-Bromo-1-hydroxy-3,4-methylenedioxypybenzene 7228-00-4
16867-03-1, 2-Amino-3-hydroxypyridine 26011-57-4, 6-Amino-3,4-dihydro-
1,4 (2H)benzoxazine 26021-57-8, 3,4-Dihydro-6-hydroxy-1,4 (2H)benzoxazine
26455-21-0, N-(3-Dimethylamino)phenylurea 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
39489-79-7, 5-Amino-2,4-dichloro-phenol 53222-92-7, 3-Amino-2-
methylphenol 54381-16-7 55302-96-0, 5-[(2-Hydroxyethyl)amino]-2-
methylphenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine-
dihydrochloride 61693-42-3, 3-Amino-2,4-dichloro-phenol 70643-19-5,
2,4-Diamino-1-(2-hydroxyethoxy)benzene 70643-20-8 71500-41-9
71500-42-0 74918-21-1, 1,3-Bis(2,4-Diaminophenoxy)propane-
tetrahydrochloride 76045-64-2 78661-33-3 80592-80-9 80592-81-0
81329-90-0 81892-72-0 83763-47-7, 2-Amino-4-[(2-
hydroxyethyl)amino]anisole 83763-48-8 84540-48-7 84540-50-1,
3-Amino-2-chloro-6-methylphenol 86817-42-7, 2-(4-Amino-2-
hydroxyphenoxy)ethanol 90817-34-8, 3-Amino-6-methoxy-2-
(methylamino)pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol
93841-25-9 94082-77-6 104752-50-3 104752-51-4 110102-86-8,
5-Amino-4-chloro-2-methylphenol 111451-24-2, 2,6-Diamino-3,5-
dimethoxypyridine 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
122455-85-0 122481-67-8 135043-64-0, 4-Amino-2-aminomethylphenol-
dihydrochloride 137290-78-9, 5-Amino-4-methoxy-2-methylphenol
139443-57-5, 5-Amino-4-ethoxy-2-methylphenol 141614-04-2,
1,3-Benzenediamine, 4-ethoxy-6-methyl- 141614-05-3, 2,4-Diamino-1-(2-
hydroxyethoxy)-5-methylbenzene 141922-20-5, 2,4-Diamino-1-fluoro-5-
methylbenzene 142082-56-2 146658-65-3 149330-25-6 155601-30-2
168092-23-7 207923-07-7 217311-43-8 350482-01-8 350482-02-9
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 123-30-8, 4-Aminophenol 591-27-5, 3-Aminophenol
RL: BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological
study); RACT (Reactant or reagent)
(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

IT 350481-06-0P 350481-07-1P 350481-08-2P 350481-09-3P 350481-10-6P
350481-11-7P 350481-12-8P 350481-13-9P 350481-14-0P 350481-15-1P

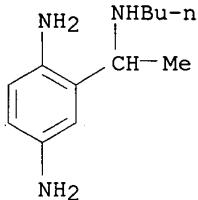
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350481-26-4P	350481-27-5P	350481-28-6P	350481-29-7P	350481-30-0P
350481-31-1P	350481-32-2P	350481-33-3P	350481-34-4P	350481-35-5P
350481-36-6P	350481-37-7P	350481-38-8P	350481-39-9P	350481-40-2P
350481-41-3P	350481-42-4P	350481-43-5P	350481-44-6P	350481-45-7P
350481-46-8P	350481-47-9P	350481-48-0P	350481-49-1P	350481-50-4P
350481-51-5P	350481-52-6P	350481-53-7P	350481-54-8P	350481-55-9P
350481-56-0P	350481-57-1P	350481-58-2P	350481-59-3P	350481-60-6P
350481-61-7P	350481-62-8P	350481-63-9P	350481-64-0P	350481-65-1P
350481-66-2P	350481-67-3P	350481-68-4P	350481-69-5P	350481-70-8P
350481-71-9P	350481-72-0P	350481-73-1P	350481-74-2P	
350481-75-3P	350481-76-4P	350481-77-5P		
350481-78-6P	350481-79-7P	350481-80-0P		
350481-81-1P	350481-82-2P	350481-83-3P		
350481-84-4P	350481-85-5P	350481-86-6P		
350481-87-7P	350481-88-8P	350481-89-9P		
350481-90-2P	350481-91-3P	350481-92-4P		
350481-93-5P	350481-94-6P	350481-95-7P		
350481-96-8P	350481-99-1P	350482-00-7P		

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation)

(hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)

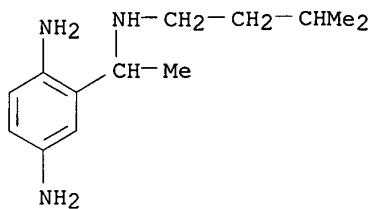
IT 59-51-8, Methionine 62-53-3, Aniline, reactions 75-04-7, Ethylamine, reactions 75-31-0, Isopropylamine, reactions 95-85-2, 4-Chloro-2-aminophenol 97-51-8, 2-Hydroxy-5-nitrobenzaldehyde 98-03-3, Thiophene-2-carbaldehyde 99-57-0, 2-Amino-4-nitrophenol 99-98-9, 4-Amino-N,N-dimethylaniline 100-52-7, Benzaldehyde, reactions 104-86-9, 4-Chlorobenzylamine 106-47-8, 4-Chloroaniline, reactions 106-49-0, 4-Methylaniline, reactions 107-10-8, Propylamine, reactions 107-11-9, Allylamine 108-00-9, 2-Dimethylamino ethylamine 109-01-3 109-55-7, 3-Dimethylamino propylamine 109-83-1, 2-Methylamino ethanol 109-85-3, 2-Methoxy ethylamine 110-58-7, Pentylamine 110-73-6, 2-Ethylamino-ethanol 110-91-8, Morpholine, reactions 111-42-2, Diethanolamine, reactions 120-57-0, 3,4-Methylenedioxybenzaldehyde 123-08-0, 4-Hydroxybenzaldehyde 123-72-8, Butyraldehyde 123-75-1, Pyrrolidine, reactions 364-73-8, Benzene, 4-bromo-1-fluoro-2-nitro-364-74-9, 1,4-Difluoro-2-nitrobenzene 364-76-1 437-83-2, 3-Fluoro-2-methoxy aniline 446-35-5, 1,3-Difluoro-4-nitrobenzene 455-14-1, 4-Trifluoromethyl aniline 498-63-5, Prolinol 500-22-1, Pyridine-3-carbaldehyde 536-21-0, 1-(3-Hydroxyphenyl)-2-aminoethanol 536-90-3, 3-Methoxyaniline 555-16-8, 4-Nitrobenzaldehyde, reactions 579-72-6, 2-Dimethylaminobenzaldehyde 587-04-2, 3-Chlorobenzaldehyde 590-86-3, 3-Methylbutyraldehyde 609-36-9, Proline 616-30-8, 3-Amino-1,2-propane diol 617-45-8, Aspartic acid 617-89-0, Furfurylamine 765-30-0, Cyclopropylamine 872-85-5, Pyridine-4-carbaldehyde 1117-97-1, O,N-Dimethyl-hydroxylamine 1121-60-4, 2-Pyridinecarboxaldehyde 1493-27-2, 1-Fluoro-2-nitrobenzene 2038-03-1, 4-Morpholineethanamine 2043-61-0, Cyclohexane carbaldehyde 2454-37-7, 3-(1-Hydroxyethyl)-aniline 2516-47-4, Aminomethyl cyclopropane 2812-47-7, Prolinamide 2835-95-2, 3-Amino-6-methylphenol 3731-51-9, 2-Picolylamine 3731-53-1, 4-Picolylamine 4214-76-0, 2-Amino-5-nitropyridine 4795-29-3, Tetrahydrofurfurylamine 5036-48-6, 1-(3-Aminopropyl)imidazole 5382-16-1, 4-Hydroxypiperidine 5616-32-0, Methylaminoacetonitrile 6168-72-5, 2-Aminopropanol 6291-85-6, 3-Ethoxypropylamine 6315-89-5, 3,4-Dimethoxy aniline 6859-99-0, 3-Hydroxypiperidine 6921-22-8 7304-32-7, 2-Fluoro-5-nitro benzoic acid 7663-77-6, 1-(3-Aminopropyl)-2-pyrrolidone 13325-10-5, 4-Aminobutanol

14268-66-7, 3,4-Methylene dioxyaniline 24424-99-5, Di-tert-butyl
 dicarbonate 25739-59-7 35303-76-5, 4-(2-Aminoethyl)-benzenesulfonamide
 40499-83-0, 3-Hydroxypyrrolidine 51980-54-2, 4-Pyrrolidino benzaldehyde
 68621-88-5 71026-66-9 244104-66-3 325953-40-0 325953-41-1
 325953-45-5 325953-46-6 325953-48-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
 IT 244104-65-2P 325953-36-4P 350481-97-9P 350481-98-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
 IT 350481-74-2P 350481-75-3P 350481-76-4P
 350481-77-5P 350481-78-6P 350481-79-7P
 350481-80-0P 350481-81-1P 350481-82-2P
 350481-83-3P 350481-84-4P 350481-85-5P
 350481-86-6P 350481-87-7P 350481-88-8P
 350481-89-9P 350481-90-2P 350481-91-3P
 350481-92-4P 350481-93-5P 350481-94-6P
 350481-95-7P 350481-96-8P
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);
 BIOL (Biological study); PREP (Preparation)
 (hair dyes contg. 2-aminoalkyl-1,4-diaminobenzene derivs.)
 RN 350481-74-2 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-(butylamino)ethyl]-, hydrochloride (9CI) (CA
 INDEX NAME)



●x HCl

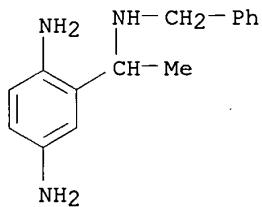
RN 350481-75-3 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-[(3-methylbutyl)amino]ethyl]-, hydrochloride
 (9CI) (CA INDEX NAME)



● x HCl

RN 350481-76-4 HCPLUS

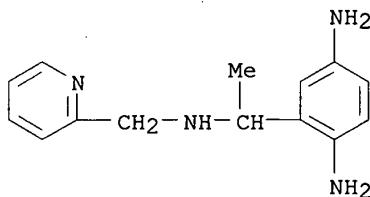
CN 1,4-Benzenediamine, 2-[1-[(phenylmethyl)amino]ethyl]-, hydrochloride (9CI)
(CA INDEX NAME)



● x HCl

RN 350481-77-5 HCPLUS

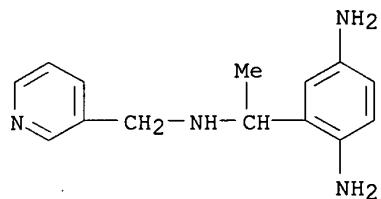
CN 1,4-Benzenediamine, 2-[1-[(2-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-78-6 HCPLUS

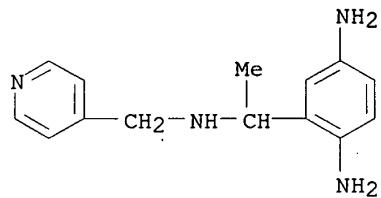
CN 1,4-Benzenediamine, 2-[1-[(3-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-79-7 HCPLUS

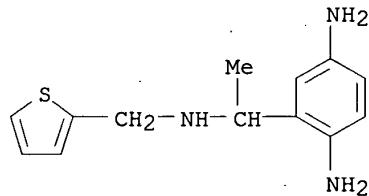
CN 1,4-Benzenediamine, 2-[1-[(4-pyridinylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-80-0 HCPLUS

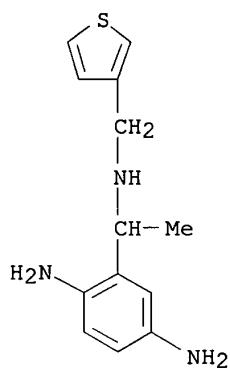
CN 1,4-Benzenediamine, 2-[1-[(2-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-81-1 HCPLUS

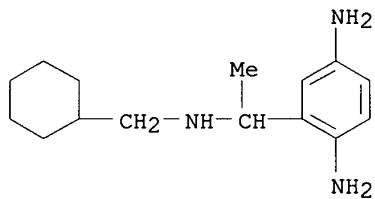
CN 1,4-Benzenediamine, 2-[1-[(3-thienylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-82-2 HCPLUS

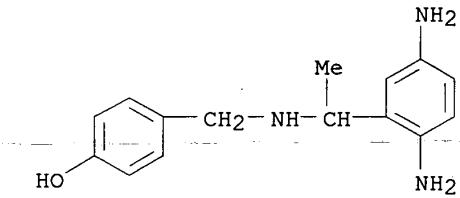
CN 1,4-Benzenediamine, 2-[1-[(cyclohexylmethyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-83-3 HCPLUS

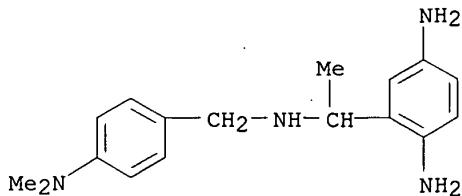
CN Phenol, 4-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-84-4 HCPLUS

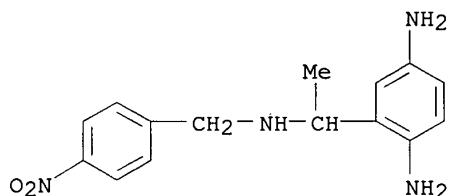
CN 1,4-Benzenediamine, 2-[1-[[4-(dimethylamino)phenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-85-5 HCPLUS

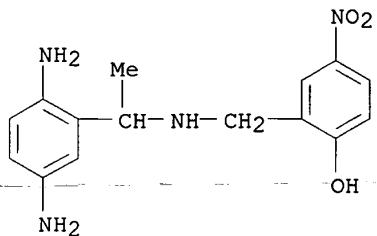
CN 1,4-Benzenediamine, 2-[1-[[4-nitrophenyl]methyl]amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

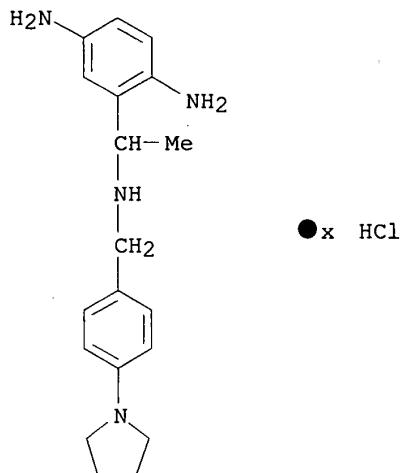
RN 350481-86-6 HCPLUS

CN Phenol, 2-[[[1-(2,5-diaminophenyl)ethyl]amino]methyl]-4-nitro-, hydrochloride (9CI) (CA INDEX NAME)

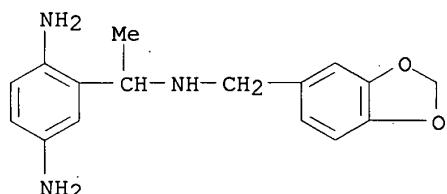


● x HCl

RN 350481-87-7 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-[[[4-(1-pyrrolidinyl)phenyl]methyl]amino]ethyl]-,
 hydrochloride (9CI) (CA INDEX NAME)

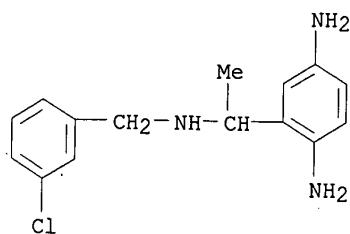


RN 350481-88-8 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-[(1,3-benzodioxol-5-ylmethyl)amino]ethyl]-,
 hydrochloride (9CI) (CA INDEX NAME)



● x HCl

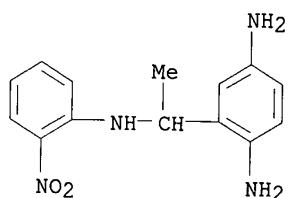
RN 350481-89-9 HCPLUS
 CN 1,4-Benzenediamine, 2-[1-[(3-chlorophenyl)methyl]amino]ethyl]-,
 hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-90-2 HCPLUS

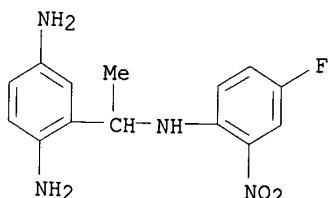
CN 1,4-Benzenediamine, 2-[1-[(2-nitrophenyl)amino]ethyl]-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl

RN 350481-91-3 HCPLUS

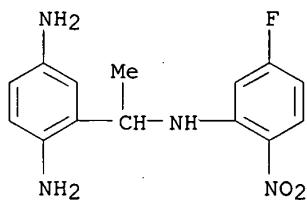
CN 1,4-Benzenediamine, 2-[1-[(4-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-92-4 HCPLUS

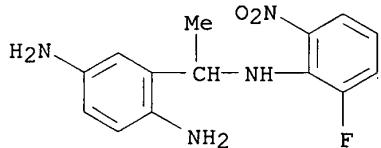
CN 1,4-Benzenediamine, 2-[1-[(5-fluoro-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-93-5 HCPLUS

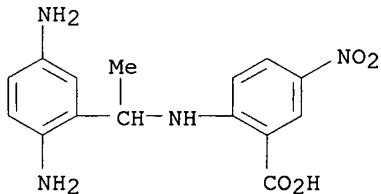
CN 1,4-Benzenediamine, 2-[1-[(2-fluoro-6-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-94-6 HCPLUS

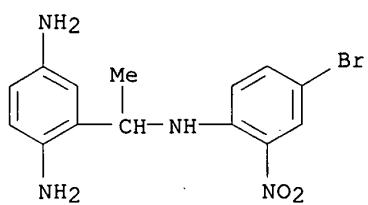
CN Benzoic acid, 2-[[1-(2,5-diaminophenyl)ethyl]amino]-5-nitro-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-95-7 HCPLUS

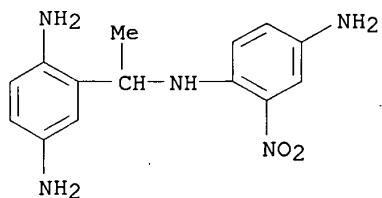
CN 1,4-Benzenediamine, 2-[1-[(4-bromo-2-nitrophenyl)amino]ethyl]-, hydrochloride (9CI) (CA INDEX NAME)



● x HCl

RN 350481-96-8 HCPLUS

CN 1,4-Benzenediamine, N-[1-(2,5-diaminophenyl)ethyl]-2-nitro-, hydrochloride
(9CI) (CA INDEX NAME)



● x HCl